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AN INTRODUCTION TO WORLD GEOGRAPHY WITH HISTORICAL BACKGROUNDS

CURRICULUM

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of the Second Course

Changing Countries and Changing Peoples

MAN AND HIS CHANGING SOCIETY

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FOR TEACHERS

American Life and the School Curriculum

Changing Countries And Changing Peoples

AN INTRODUCTION TO WORLD GEOGRAPHY WITH HISTORICAL BACKGROUNDS

By HAROLD RUGG, *Professor of Education,*
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PREFACE

Changing Countries and Changing Peoples: An Introduction to World Civilization is the second volume of the Rugg Social Science Course, entitled Man and His Changing Society. This series of semester volumes, fourteen in number, has been designed to help young Americans to understand the principal world cultures and their history.

A General Course in Social Science

Teachers using this present volume should acquaint themselves with the general scope of Man and His Changing Society, the series of which it is a part. A description and an interpretation of the material are presented in the following publications, which can be secured without charge from Ginn and Company:

1. Rugg. *Building a Science of Society for the Schools.*
2. Rugg and Krueger. *Social Science Course for Elementary Schools.*
3. Buckingham, B. R. *The Rugg Course in the Classroom.*
4. Rugg. *The American Way of Progress.*

An extended statement of the philosophy and psychology upon which they are based is given in Rugg's *American Life and the School Curriculum.*

The fourteen volumes of Man and His Changing Society are arranged in two series: the First Course, consisting of eight volumes, and the Second Course, consisting of six volumes. Additional volumes are in preparation for use in the later years of school. Each unit of the curriculum contemplates a *Reading Book*, a *Pupil's Workbook of Directed Study*, and a *Teacher's Guide.*

The First Course offers a new program in the social studies for boys and girls whose reading ages vary from about eight to eleven years. These eight volumes have been designed as a

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thorough introduction to the theme of people living together in tribes and races, in communities, in regions, and in nations. Hence the books portray the integrated story of man's advancing civilization: his economic, political, and social life, his mechanical arts, his social arts, and his aesthetic arts.

The Second Course, planned for the secondary schools, carries on the integrated study of world civilizations in a carefully graduated and steadily maturing plan. The first volume, *Our Country and Our People: Introduction to American Civilization*, deals chiefly with economic and social life in the United States today. This present volume, *Changing Countries and Changing Peoples*, introduces the pupil to economic and social life in other lands. It considers especially the great industrial nations, the changing agricultural countries, and the interrelation of the two. The third volume, *The Conquest of America: A History of American Civilization, Economic and Social*, discusses the land, industrial and commercial history, and their effect upon American society. The fourth volume, *America's March toward Democracy: A History of American Life — Political and Social*, deals with the experiments in government. Together these last two volumes form a comprehensive history of the civilization and culture of the United States in its geographic setting.

The fifth volume, *An Introduction to Problems of American Culture*, completes the description of American society, treating especially the life of the individual in the communities of our changing civilization. It also serves the special purpose of introducing the economic, political, and social problems of American culture — problems the more adequate study of which may well engage the attention of students in the senior high school and the college. The sixth volume, *Changing Governments and Changing Cultures — Democracy versus Dictatorship: the World Struggle*, introduces American youth to an understanding of the chief political and social problems of other leading countries of the world.

Thus Volume V rounds out the material of Volume I, and Volume VI that of Volume II. The six volumes taken together are designed to provide a comprehensive introduction to modes of living and insistent problems of the modern world.

THE IMPORTANCE OF INTRODUCING YOUTH TO AN UNDERSTANDING OF CONTEMPORARY CIVILIZATION

The author firmly believes that young Americans can be given an appreciation of the significant contemporary problems of living together. Current conditions in America throw into sharp relief the critical need of teaching our youth to understand American life and its relation to the modern world. Our schools are confronted with the difficult task of educating pupils to become informed, thinking citizens. During the past 150 years the rapid development of industrial civilization has produced problems of living together that baffle even the keenest adult minds.

It is of the utmost importance that schools bend every effort to introduce our young people to the chief conditions and problems which will confront them as citizens of the world. That is the essential purpose of this new unified course in the social studies.

THE MATERIALS ARE BASED UPON THE FINDINGS OF SPECIALISTS

The foundation of this new course is a series of research studies of the basic modes of living and the problems of modern life, the great movements through which institutions and problems have evolved, and the chief concepts and principles which, as history has proved, lie at the roots of living together.

Who knows best what these great institutions, problems, and trends are? Specialists on the frontier of thought who see society from a height, who detect its trends and the long-time movement of its affairs. From the mature thought of established students of modern life and its historical development, therefore, instead of from the single judgments of the textbook-maker, the skeleton of this course has been designed. It is based upon many years of investigational work.

A UNIFIED COURSE IN SOCIAL SCIENCE

Why one general course rather than the separate subjects of history, geography, and civics? Because the chief aim is to understand modern life and how it came to be. To understand any institution or condition of life today, the mind must utilize facts, meanings, generalizations, and historical movements that in the past have been set up in separate school subjects. For example, to understand the westward movement of the American people one must see in close relationship the tide of immigration across the continent; the blazing of trails; the evolution of new routes by land and water; the rapid development of new types of transportation; constantly changing forms of social life; the rise of cities behind the advancing frontier; the influence of mountains, deserts, climate, rivers, and soil upon travel, transportation, and communication; and where and how people live. All these factors must be tied closely together in their natural relationships. Hence the necessity of combining them into one general course instead of teaching them as separate subjects. In constructing this course one question has constantly been in the foreground: What historical movements, what geographic, economic, social facts, meanings, and principles do young people need to study together to understand the modern world?

In *Changing Countries and Changing Peoples,* as in the other volumes of this series, historical, geographic, economic, and other materials are studied *in close relationship.* Whenever history is needed to understand the present, history is presented. If geographic relationships are needed to throw light upon contemporary problems, those geographic relationships are incorporated. The same thing is done with economic and social facts and principles.

This has *not* caused a reduction in the amount of history or of geography included in the course. Rather, it has produced a sharp increase in the amount of these subjects in the curriculum and, in addition, has added to the curriculum a wealth of new material. Comparisons of the amount of history and geography in these six *Reading Books* with that of conventional textbooks in these subjects *should be based on a study of the total series and not on any one book.*

"LEARNING BY DOING": THE *PUPIL'S WORKBOOK OF DIRECTED STUDY*

The very center of this course in the social studies is the problem-solving activities of the *Workbook.* The chief goal of the social studies is active and intelligent participation in American civilization and tolerant understanding of other civilizations.

To guarantee the attainment of this goal the school must organize its work around a core of dynamic pupil activities. *Young people grow in understanding only by participating actively in the study of the society around them.* Even to the present day the work in the social studies has consisted too much of memoriter recitation from the contents of encyclopedic textbooks in history, geography, and civics.

The essence of this new course in social studies is a succession of pupil activities, dynamic and thought-provoking. Many optional suggestions for these activities are incorporated in the *Workbook* and presented as a series of problems. Each problem of this course is an organized scheme of things for the pupil to do. Each unit compels him to find the answer to one or more important questions. The course, as presented in the *Workbook*, therefore, constantly confronts the pupil with stimulating problems, insight into each of which is important for an adequate understanding of the problems of the modern world. Hence the *Pupil's Workbook of Directed Study* is the very core of the course, and the *Reading Book* has been constructed, unit by unit, in close conjunction with it.

Planned Repetition

One of the characteristics of this course is the carefully planned recurrence of important concepts, generalizations, and historical themes in varied settings. One of the weaknesses of current school courses in history, geography, and civics is lack of planned repetition. In the present course this defect has been remedied by designing a carefully planned scheme of repetition. In preparing each topic the outstanding concepts, generalizations, and themes that an educated mind should understand have been charted in advance. Episodes, narratives, statistical and graphic exhibits, pictures, and maps have been selected with the need for the illustration of these items clearly in mind. Hence the student will encounter the important meanings, principles, and movements over and over again, but constantly presented in new and varied settings.

In Acknowledgment

This enterprise could not have been developed without the co-operative support and friendly and critical advice of many persons. First, there are several thousand progressive administrators and teachers who contributed criticisms and suggestions. From 1922 to 1929 inclusive these educational leaders gave unsparingly of their energy to the experimental trial of the tentative editions of these books. By their courage and vision in utilizing novel materials in the social sciences, they have put the children of American schools as well as myself in their debt.

Second, there is the administration of Teachers College, Columbia University, and of the Lincoln School. The American children who will use these materials owe a debt of gratitude to the deans of Teachers College and the directors of the Lincoln School for permitting and encouraging the development of this course by experimental methods.

I have acknowledged with pleasure in the body of the text many instances of co-operation from publishers who permitted quotations from their publications and the reproduction of illustrative materials. Almost without exception requests for co-operation of this character have been cordially granted.

This statement of my indebtedness should not be permitted to close without referring to the unsparing efforts of the staff of Ginn and Company to produce a practicable, attractive, and teachable body of materials. But especially I wish to express my appreciation for the encouragement and support given by Messrs. Charles H. Thurber, Henry H. Hilton, and Burdette R. Buckingham.

Changing Countries and Changing Peoples is more than a "revision" of *Changing Civilizations in the Modern World*, which was published in 1930. It is essentially a new book, made necessary by the completion of the eight volumes of the Rugg-Krueger First Course in the series of Man and His Changing Society. Its preparation for the press has been a task of great difficulty. That it has been brought to successful completion at this time is due in large measure to my research associate Marvin Krueger and to my secretary and editorial assistant, Ruth LaVoy. I wish to express to them my deep appreciation for their wise and untiring collaboration.

HAROLD RUGG

New York

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CHANGING COUNTRIES AND CHANGING PEOPLES

UNIT I

INTRODUCING THE STUDY OF MODERN CIVILIZATION

Startling Changes around the World

ABOUT 1800 A.D.	TODAY
Agricultural Countries	**Industrial Countries**
1. There was not one industrial country; all countries were agricultural. Goods were produced chiefly by the muscles of men and animals and with the help of wind and water.	1. There are seven major industrial countries with 560,000,000 people living in them; more millions live in several minor industrial countries. All produce goods chiefly by power-driven engines and machines.
Countries Separated	**Countries Bound Together**
2. Countries were very much isolated from one another; there were no international telegraph, telephone, wireless, or air services.	2. All the 74 countries and most of the "backward" regions are tied together by means of railways, airways, and instantaneous electrical systems of communication.
Self-sufficient Peoples	**Interdependent Peoples**
3. The people of one country, although trading much with those of others, were largely self-sufficient; that is, they themselves were able to produce the things they needed, if necessary, without the help of other countries and peoples.	3. All countries depend so much upon trade with one another that if important changes occur in one, all the others are affected. In short, the people of the whole world are interdependent.
Farming Villages	**Industrial Cities**
4. Not more than 5 to 10 per cent of the people of the world lived in cities. Most of them were engaged in trade or handicrafts. The bulk of the people lived simple, neighborly lives in villages or on farms.	4. In the leading industrial countries 60 to 80 per cent of the people live in cities. They are engaged in manufacturing. They are buying and selling goods. They are doing the work of government, business offices, or professions. They live under complicated, crowded conditions.

CHAPTER I

STARTLING CHANGES AROUND THE WORLD: A NEW CIVILIZATION FOR THE OLD

The astonishing hundred years!

There have been greater changes around the world during the past century than during all the previous years of man's history on earth!

Can that be possible?

To get a partial answer to that question, consider some of the startling changes since about 1800 A.D., which are listed on the opposite page.

Take the changes in producing goods. The invention and perfection of workable engines and machines took the production of goods almost completely out of the hands of slow-working craftsmen and gave it to rapidly moving, efficient machinery — all in a little over a century!

Take the development of transportation and communication. Every modern device for shipping goods and for sending messages rapidly from place to place has been invented during the past hundred years.

Consider the dependence of peoples upon one another. In previous times countries and peoples were self-sufficient; they could meet their own needs, if necessary, without outside aid. But today no country in the world can live to itself.

Note the astonishing growth of cities. In about 1800 A.D. there were only a few fairly large cities in different parts of the earth; and they were largely centers of trade. Today, from three fifths to four fifths of the inhabitants of the major industrial countries live huddled together in vast and swiftly growing industrial cities.

Take the reading of newspapers, magazines, books, and the like. About 1800 not 5 per cent of the people of the larger countries could read and write. Today in the major industrial countries more than 95 per cent can do so.

Consider the changes in agricultural countries like Japan. In 1867 the Japanese were a simple-living group of 29,000,000 farmers, self-sufficient, and refusing to have much to do with outside peoples. Today Japan is a major industrial nation of 70,000,000 people, completely dependent upon Europe, America, and other countries for many of the things she needs.

Take the changes in the ways of living of most "nature peoples." For example, up to about 1800 the civilizations of primitive Australian tribesmen, of the highly developed Maoris of New Zealand, and of similar tribes in Africa had remained unchanged from century to century. Today the lives of practically all of these have been drastically changed by European peoples. As you will read later, Europeans forced their way into the lands of these "nature peoples" and literally made them over. They dictated where they could live and how, what work they should do and when; in short, they dictated what they could do and what they could not do. One result was that the number of nature peoples declined. Their age-old customs had to give way to the new European-industrial way of life.

Change! Greater change!! Still greater change!!!

Changes in every phase of life. . . . Changes in industry, transportation, and communication. . . . Changes in family life and other social customs. . . . Changes in government. . . . Changes in everything.

Is it not clear, then, why we call this book *Changing Countries and Changing Peoples*?

I. Changes in Population

How many people are there in the world?

One of the most astounding changes that has taken place in the past century is in the number of people on the earth. Recently in one of our junior high schools the young people had a very interesting discussion of that problem.

Ben Andrews, the president, opened the meeting of the Social Science Club of the George Washington Junior High School with an abrupt question. "How many people," he asked, "do you think there are on the earth?"

John Rogers, who was always ready with an answer, spoke before a hand went up. "Ten million," he guessed.

"Why, John!" said Betty Green, in a chorus of "Oh's" from the club, "What a foolish idea! There are almost 10,000,000 people in Illinois alone, and we know there are about 130,000,000 in the United States. There must be 300,000,000 or 400,000,000 on the whole earth!"

Other answers were given, some lower than Betty's, one even as high as 10,000,000,000. Ben wrote them on the board in a table that looked like the table given on this page.

Number of People in the World	Number of Pupils who gave the Answer
10,000,000	1
200,000,000	4
300,000,000	3
500,000,000	5
700,000,000	2
800,000,000	4
1,000,000,000	8
1,500,000,000	3
1,800,000,000	3
3,000,000,000	2
4,000,000,000	1
6,000,000,000	1
10,000,000,000	1

What would you guess? Think about the problem for a moment first. You know, for example, the population of the United States. Perhaps you also have an idea of the population of Great Britain, Germany, Russia, China, Japan, or India. These are all countries that have very large populations. In addition there are many people in the smaller countries of Europe, in Asia, in North America, and in South America. Add together the populations of all the countries which you know. Then make a note of what you think the population of the earth is. Now compare your answer with the number given in the next section. How nearly right were you?

Population grew quickly in a hundred years

Perhaps you will be astonished to find what a large proportion of these people was added to the population in just the last hundred years. For hundreds of thousands of years while men had struggled to keep alive on the earth, their numbers had grown very slowly indeed. Gradually they learned how to fight off wild animals and protect themselves from their enemies. After a very long time they invented ways of growing food in the ground. They found ways of building better houses for protection against floods and drought, the freezing weather of cold deserts and the sizzling heat of hot ones. Nevertheless, about as many died each century as were born. Population grew very slowly indeed. Even as late as 1845 A.D. there were only about 1,000,000,000 people on the entire earth.

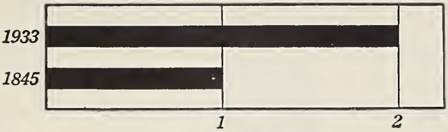


FIG. 1. The growth of world population

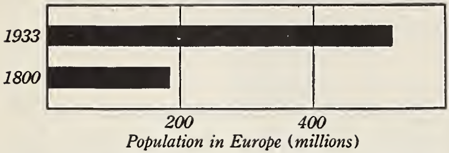


FIG. 2. Growth of the population of Europe since 1800

By that time, however, scientists and other students had discovered ways of keeping people alive longer. People had found ways of getting more and better food. Population began to increase swiftly. The bar graph of figure 1 shows that in the 90 years following 1845, the population of the earth doubled — that is, it reached *two billion.* That of Europe alone (figure 2) tripled! So also the population in some of the "new" countries (figure 3) grew manyfold! In 1790 the United States had less than 4,000,000 people. Today it has about 130,000,000, that is, 32 times as many as in 1790.

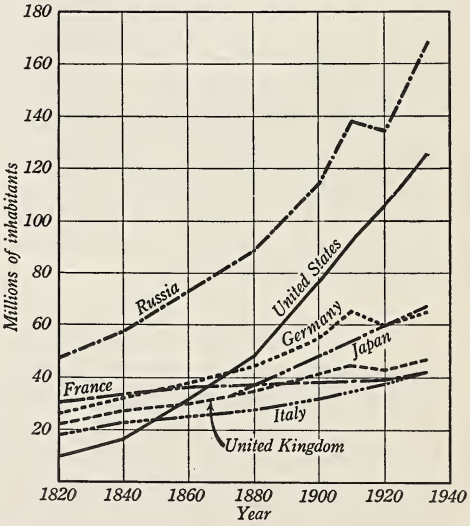


FIG. 3. Increase of population in six principal countries, 1820–1933. (Adapted from *Mankind at the Crossroads,* by Edward M. East. Courtesy of Charles Scribner's Sons)

How can these amazing increases be explained? We shall see as we go forward with our studies.

II. THREE GREAT FARMING COUNTRIES CHANGED QUICKLY INTO MANUFACTURING COUNTRIES

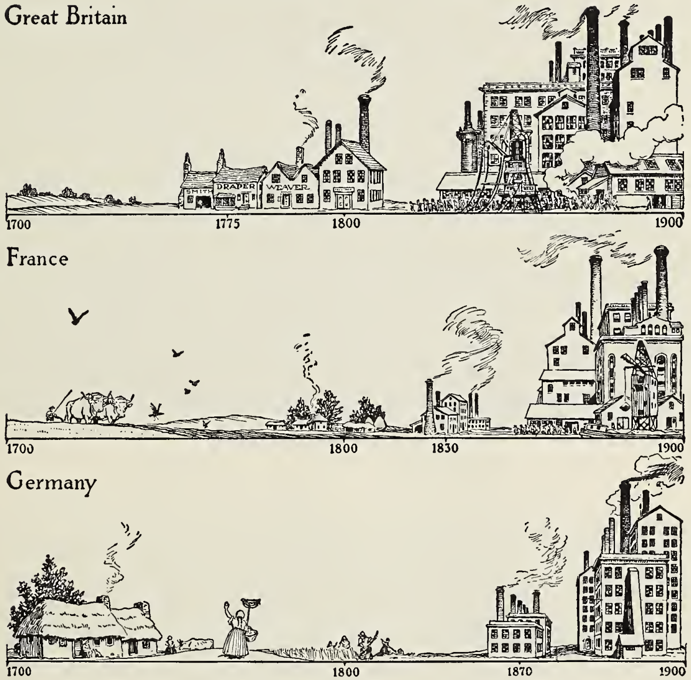

Great Britain
SMITH
DRAPER
WEAVER
1700
1775
1800
1900
France
1700
1800
1830
1900
Germany
1700
1800
1870
1900

FIG. 4. This pictograph tells the story of the Industrial Revolution in three of the four great industrial countries of the world today. It shows that the Industrial Revolution came later in Germany than it did in either Great Britain or France, but that when once started it developed rapidly

The three "Time Lines" above show how quickly Great Britain, France, and Germany changed from "agricultural" to "industrial" countries. They show also that Great Britain changed earlier than the others. By 1800 Great Britain had many small factories. But at that time France and Germany had not even started to manufacture things. It was not until after 1850 that they made much use of engines, machines, trains, steamships, the telegraph, and other tools of the modern *industrial* nations. Then after 1870 changes came faster and faster.

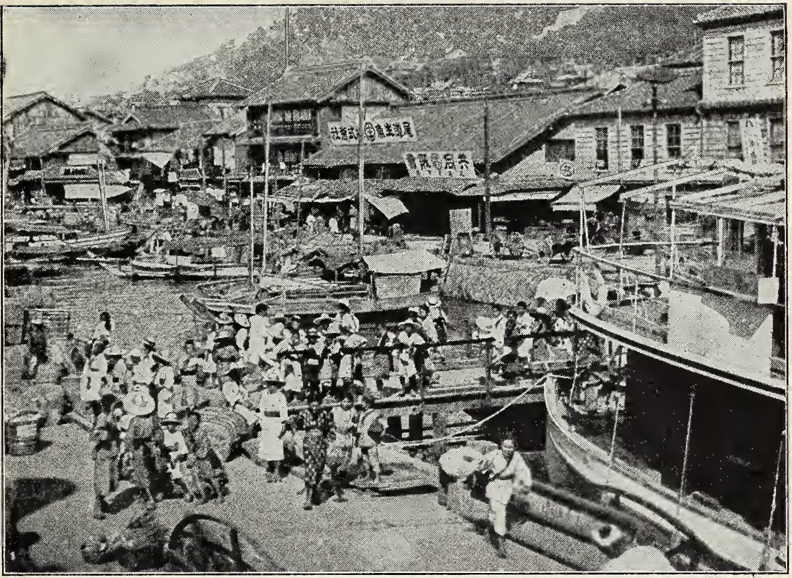
If we had also made a time line for Japan, the pictures of modern factories would appear much farther to the right. There factories and the other signs of industrial ways of living did not begin until about 1880, only 60 years ago. But after that changes came very quickly. As the photograph of figure 6 shows, some Oriental villages became modern industrial cities almost "overnight"!

Russia: the swiftest changes of all

Perhaps you are thinking that 60 years is a very short time for the people of a country to change from a nation of shut-in farmers to a great industrial world power. Yes, it is; but drastic changes in Russia occurred even more suddenly than that. In 1923 Russia was a country consisting chiefly of thousands of poverty-stricken farming villages west of the Ural Mountains. Most of them were completely cut off from the few cities. Very few people in these villages could read. There were no paved roads, railways, or telegraph systems. For months in the cold winter no word at all from the outside world came to many of the villages.

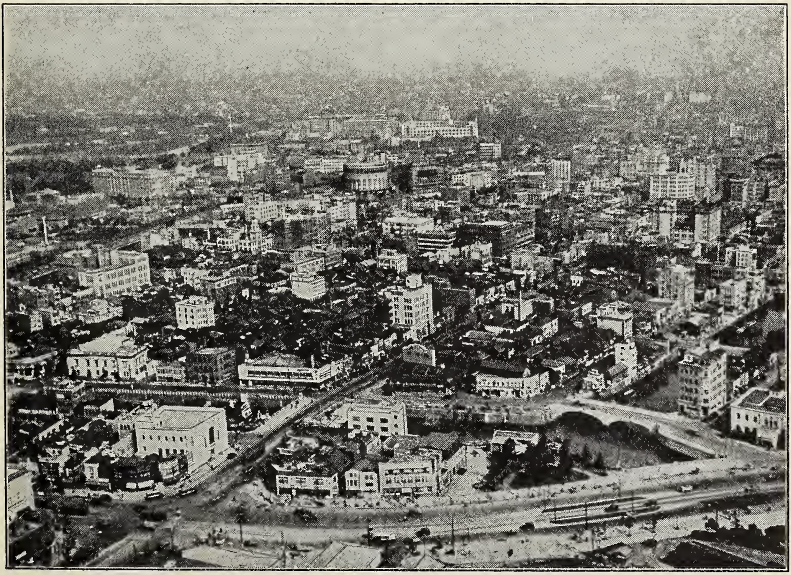
Today Russia, with about 170,000,000 people, growing by 3,000,000 a year, is a strong industrial nation and a world power, extending from Poland in Europe across Asia to the Pacific Ocean. Great coal fields have been opened up. Enormous dams have been built on rivers to provide for electric power and irrigation. Giant steelworks have sprung up in several centers. Industry and agriculture by machinery have swept eastward from Europe into Siberia. Millions of acres of cotton land have been planted in newly irrigated lands in Central Asia as well as in the region around the Caucasus. One of the great manufacturing and mining centers of the world is being built in middle Siberia in the Kuznetsk Basin, where only a few years ago backward peoples grazed their animals.

Thousands of miles of double-tracked railways now connect the far-eastern part of the Union of Russian Republics with the European and southern parts. Because of the successful experiments of scientists, foods are now grown in the short growing season of the freezing arctic region. Canals have been dug and



Lionel Green

Fig. 5. A small village in Japan



Acme

Fig. 6. The business area of the modern city of Tokyo

airways started; radio and telephone and telegraph service bind thousands of communities together. Today, instead of importing many raw materials, such as cotton, Russia is able to produce almost everything she needs for a fine civilization. Villages have been cleaned up. Hard roads now join them to each other and to the market cities. Thousands of schools have been started, and all the children and most of the grownups have learned to read and write.

In recent years a "backward" agricultural civilization has been rapidly changing into a modern one!

III. New Means of Transportation and Communication Bind Shut-in Countries Together

The new inventions of the Europeans and the Americans did not change merely the ways of making things. They brought new and rapid ways of transporting goods and people, new ways of sending messages. Sailing ships 90 years ago fought for several weeks against ocean storms to bring things across the Atlantic from Europe to America. Today swift ocean liners cross from Europe to America in 5 days. The trip from Europe to the Far East took months 90 years ago; in 1932 the author of this book sailed from Shanghai, China, to Marseille, France, — by way of Singapore, Penang, Colombo, Bombay, Aden, the Suez Canal, and the Mediterranean Sea, — *in exactly 30 days.*

But ocean liners are slow compared with the new airplanes! Imagine regular weekly airplane service from Java in Netherland India to Rome, Berlin, Amsterdam, Paris, and then London — about 7000 miles in 7 days. Week in, week out, the year round, people of the extreme East ride through the air to those of the extreme West in about a week!

Air travel across the Pacific between the United States and Asia was inaugurated in 1935 when the *China Clipper* flew from San Francisco to the Philippines. Regular air service across the Atlantic was started in 1939. The shorter route, which is flown in about 24 hours, is from New York to Ireland and England by way of Newfoundland. The longer but safer route for winter flying is by way of the Azores and Portugal.

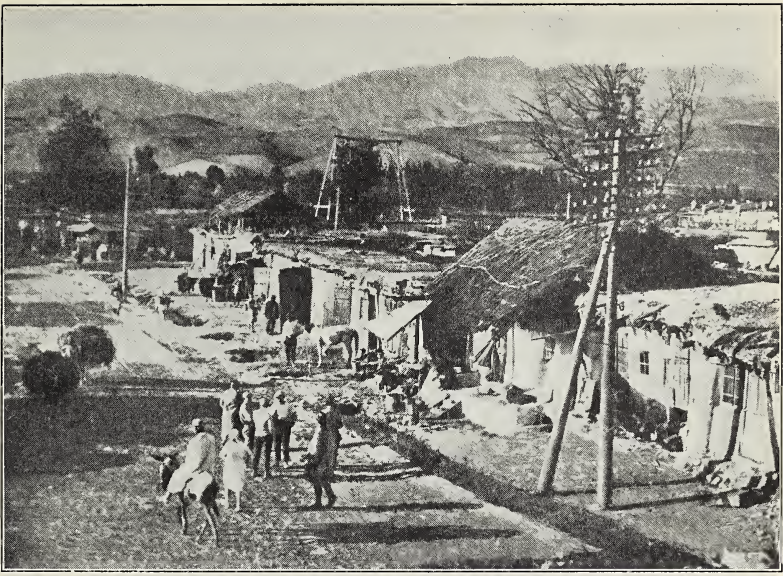
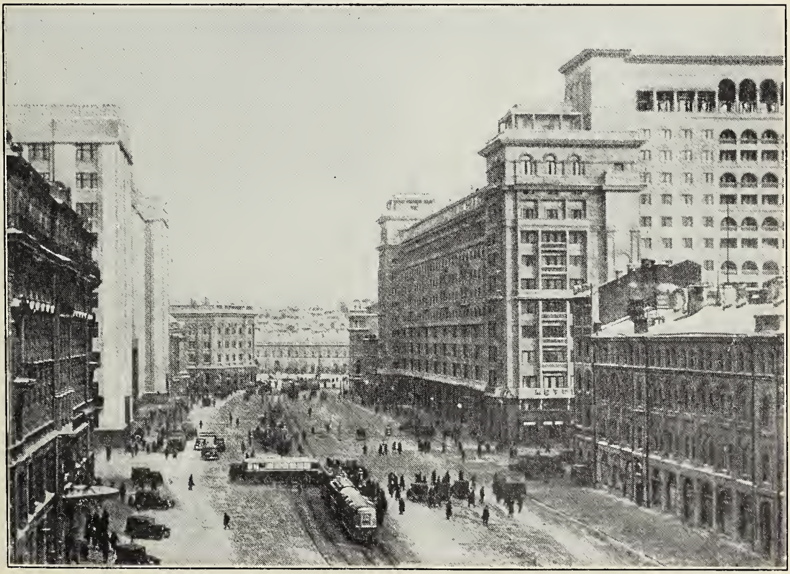


FIG. 7. The village of Dushambe in "old" Russia. Today this village has become a city of 40,000 people



Acme

FIG. 8. A street in Moscow. Does it remind you of an American or a European city? Not long ago this street was lined with small, dingy shops

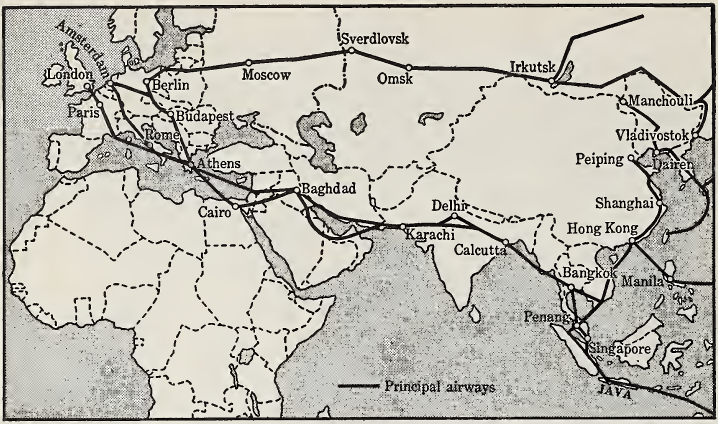

Amsterdam
London
Paris
Berlin
Moscow
Sverdlovsk
Omsk
Irkutsk
Manchouli
Vladivostok
Peiping
Dairen
Budapest
Rome
Athens
Baghdad
Cairo
Delhi
Shanghai
Hong Kong
Karachi
Calcutta
Bangkok
Manila
Penang
Singapore
Principal airways
JAVA

FIG. 9. There is regular airplane service across Eurasia from east to west as shown on the above map

But, wonder of wonders, Dutchmen at home in Holland need not wait even a week to talk to their people in the islands of the Far East. For example, they simply take down one of the 35,000,000 telephones in the world and call Batavia, Java. In a few minutes the telephone operators of several countries make a few connections and two people 10,000 miles apart talk together. More astonishing yet — the business man of London, England, uses the telephone to buy and sell goods in Sydney, Australia, 12,000 miles away! Such are the changes in communication since that historic day in 1876 when Alexander Graham Bell first spoke over wires from the attic of his house to his assistant in the basement the famous words, "Watson, come here, I want you!"

But it seems that the electrical wonders never cease. Signor Marconi first successfully sent sounds across the Atlantic into a wireless receiving set in 1896. Only recently 500,000,000 people in every continent of the earth listened to King Edward VIII of Great Britain announce his giving up of the throne! A short time ago the author of this book heard in his hotel in Hobart, Tasmania, a radio broadcast from Madison Square Garden in New York City; over this distance of 12,000 miles he could hear the speeches of people in a crowd at home.

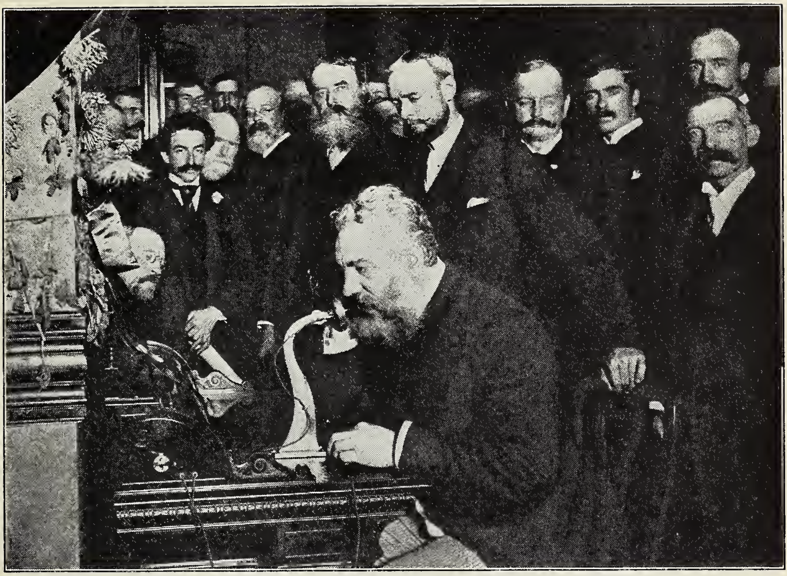
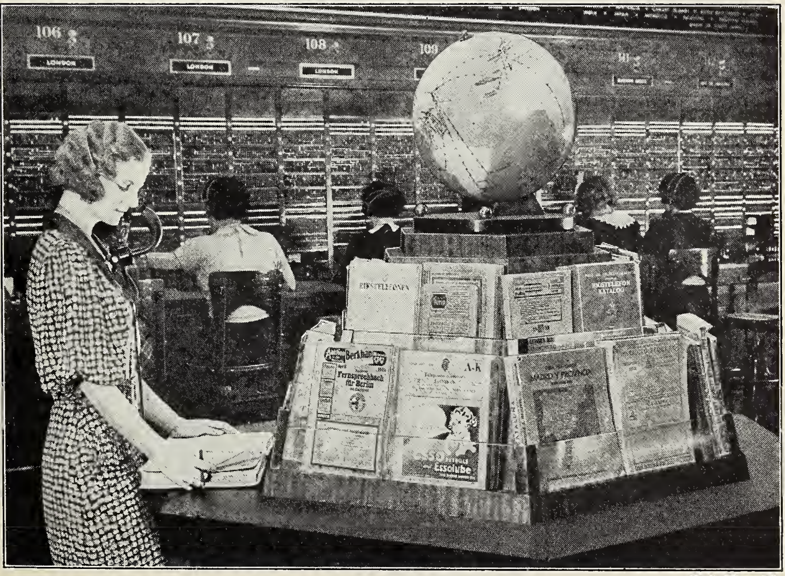


Fig. 10. In 1892 Dr. Alexander Graham Bell held the first telephone conversation over the wire between New York and Chicago


106
107
108
109
LONDON
LONDON
LONDON
RIKSTELEFONEN
RIKSTELEFON KATALOG
Berkhan
Fernsprechbuch für Berlin
MADRID Y PROVINCIA

R. I. Nesmith

Fig. 11. Today the information clerk in the long-distance division of the telephone company can connect you with any part of the world

IV. Are Peoples as Self-sufficient as They Were in 1800 A.D.?

How have these remarkable changes in communication affected the way nations live together? That problem also we shall study carefully in this book. But we can get a glimpse of one startling effect — perhaps the most important change brought about in modern civilization — by studying figure 12. Peoples, who formerly could live very much to themselves while they were agricultural countries, now, as industrial countries, depend for their very existence on faraway parts of the earth. Little Britain depends on getting from New Zealand, 12,000 miles away, half of the dairy products she uses. (From the map of figure 12 make a list of the things she gets from other parts of the earth.) New Zealand, in turn, and Australia depend on the money which they receive from selling wool, meat, dairy products, and other things to Great Britain. The same thing is true of Japan and the United States, of Great Britain and China, of the Philippines and America, of scores of other countries.

Formerly countries were fairly self-sufficient; now they are thoroughly interdependent!

V. Great Changes in Man's Houses

As countries changed from hand farming and handicraft to machine farming and manufacturing, and as more and more people went to live in cities, astonishing changes took place in the houses the people lived in. For a long, long time most people lived in crude huts of reed or thatch, of logs or mud bricks (see figure 7). But as tools of steel were invented after 1800 and as new ideas of building were thought up, dwelling houses of finely sawed and planed wood, of cut stone, of beautifully made bricks, were put up. Concrete was re-invented (the Romans had known how to make and use it 2000 years ago) and steel frames were designed. Then, as the pictures of figures 13 and 14 show, great changes came in the houses people lived in around the world.

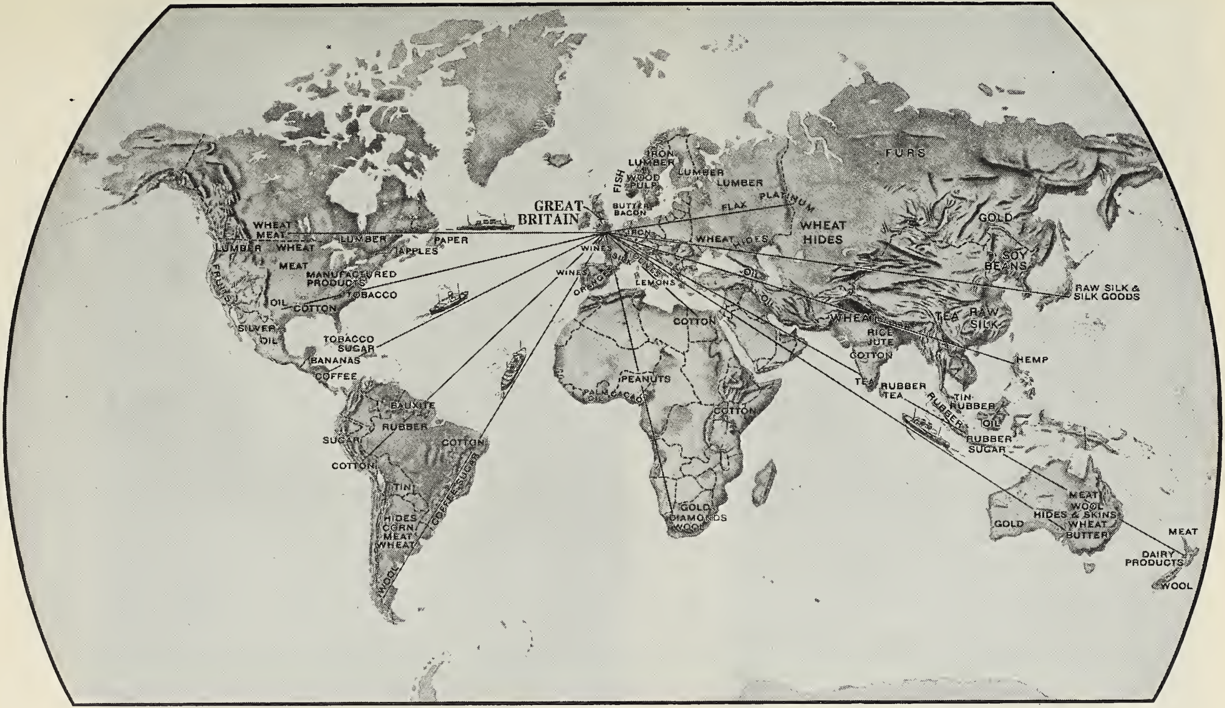
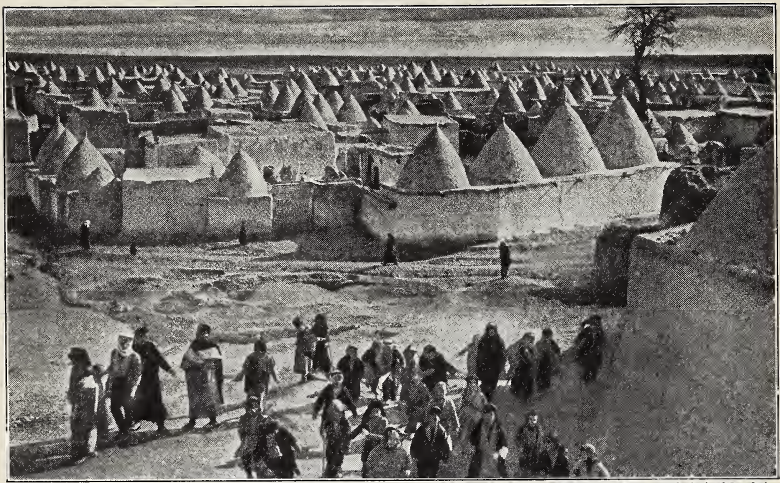
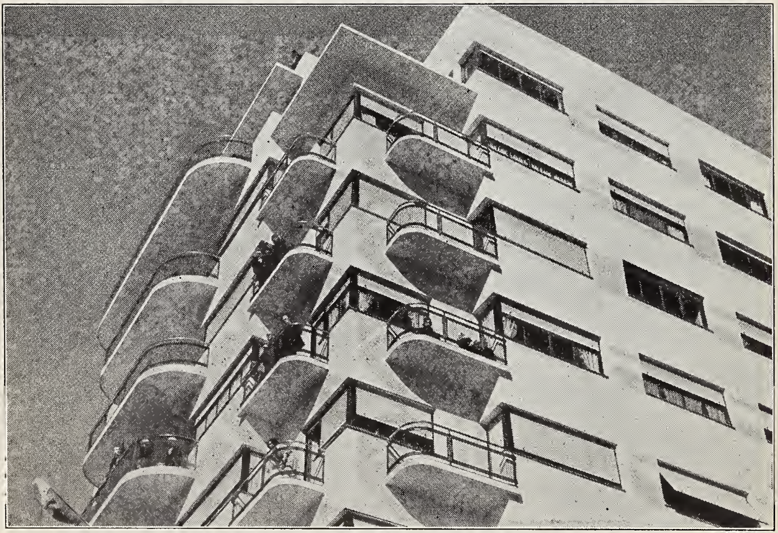

FURS
IRON
LUMBER
FISH
WOOD PULP
LUMBER
LUMBER
GREAT BRITAIN
BUTTER
BACON
FLAX
PLATINUM
WHEAT
HIDES
GOLD
SOY BEANS
IRON
WHEAT HIDES
WINES
SILK
OLIVES
WINES
ORANGES
LEMONS
OIL
OIL
RAW SILK & SILK GOODS
COTTON
TEA
RAW SILK
WHEAT
RICE
JUTE
COTTON
HEMP
TEA
RUBBER
TEA
RUBBER
TIN
RUBBER
OIL
RUBBER
SUGAR
PEANUTS
PALM OIL
CACAO
COTTON
GOLD
DIAMONDS
WOOL
MEAT
WOOL
HIDES & SKINS
WHEAT
BUTTER
GOLD
MEAT
DAIRY PRODUCTS
WOOL
WHEAT
MEAT
LUMBER
WHEAT
LUMBER
PAPER
APPLES
MEAT
MANUFACTURED PRODUCTS
TOBACCO
FRUITS
OIL
COTTON
SILVER
OIL
TOBACCO
SUGAR
BANANAS
COFFEE
BAUXITE
RUBBER
SUGAR
COTTON
COTTON
COFFEE
SUGAR
TIN
HIDES
CORN
MEAT
WHEAT
WOOL

FIG. 12. Great Britain's dependence on the world for raw materials. All these regions help to keep her factories running and to feed her millions of people



Pictures, Inc., and *Asia Magazine*

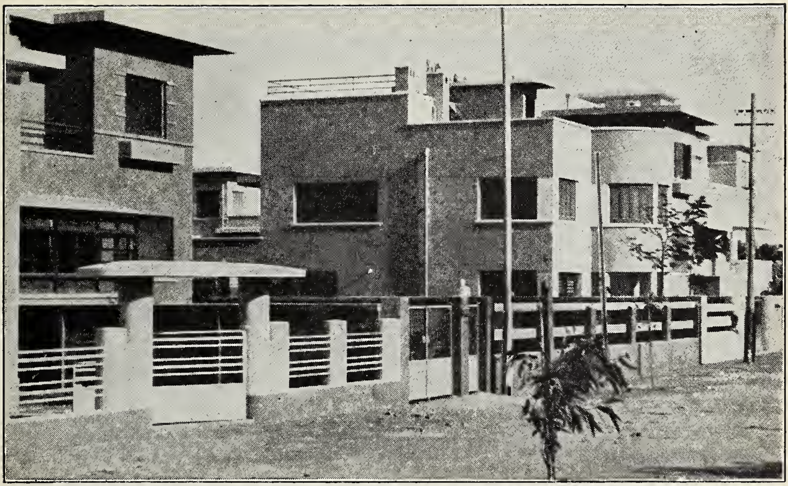
Beehive-shaped houses built of clay form a village in northern Syria



Sawders

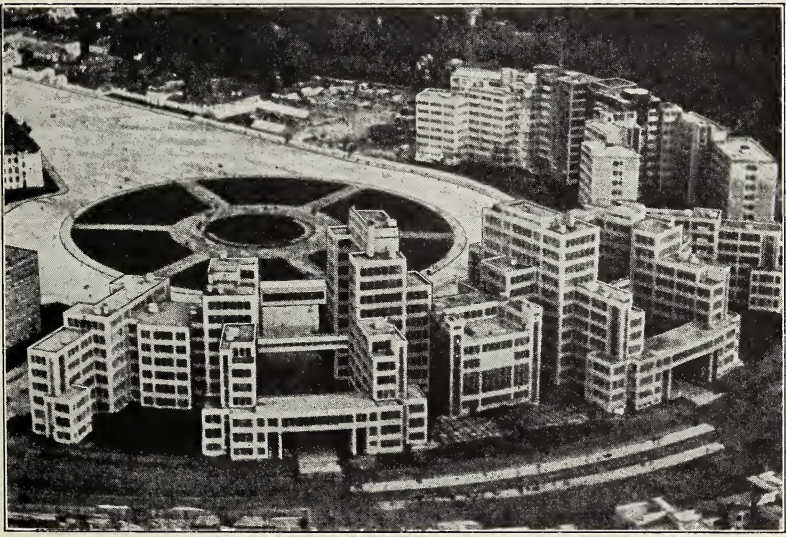
A modern apartment building in Buenos Aires, Argentina, South America

Fig. 13. A contrast in modern housing



R. I. Nesmith

A modern home in Alexandria, Egypt



Authenticated News

A modern community home in Kharkov, Russia

Fig. 14. Architecture is much the same in all parts of the modern world

In the various volumes of this series, Man and His Changing Society, there have been many illustrations of houses from the earliest times down to the present day. As you have read these books you have seen the crude, primitive habitations of nature peoples replaced by more and more permanent and elaborate buildings.

Many different kinds of building materials have been used throughout the ages — reeds, timber, snow blocks, stone, concrete, steel, glass. In most cases the materials used were found near by. Some lasted longer than others. Some were more substantial.

You have seen great differences in the sizes of man's houses. Recall the many kinds of one-room structures and contrast them with the giant many-storied and many-roomed stone or steel apartment buildings or mansions of today.

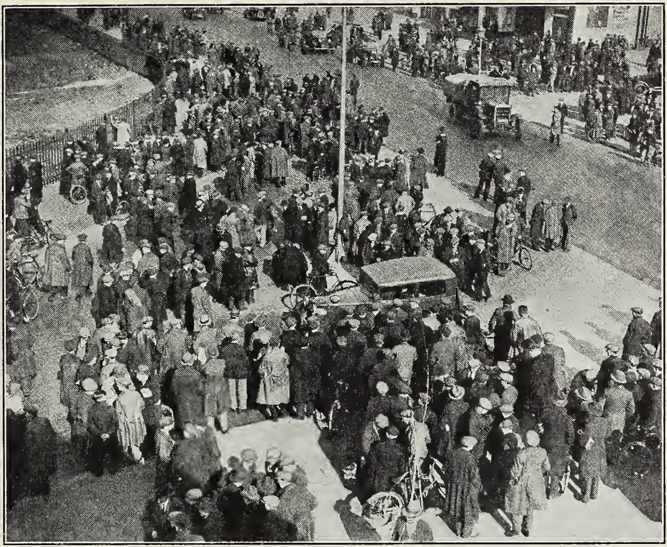
Can you name any of the ways in which man has made his houses more comfortable than they used to be? What changes made some of the houses better for the health of the people who live in them?

What have been the differences in houses from the standpoint of beauty? Do some look better than others? In which do you think the builders have worked as artists?

Now turn through the chapters of this book showing buildings in many countries in different parts of the earth. As you do so you will understand why we say that important changes in the houses of man have taken place since about 1800.

Perhaps you have noticed this too: as time has passed, housebuilding around the world has become more uniform. In earlier times the houses of one region or country differed greatly from those of another. Is that true today? The examples in this book alone will show you that modern houses in countries far apart, in America and Europe, Asia and Africa, often look very much alike. You can prove this for yourself by comparing the principal buildings of a great city in one country with those in the capital of another.

And so important and far-reaching changes have taken place, in building as well as in other aspects of modern life.



Acme

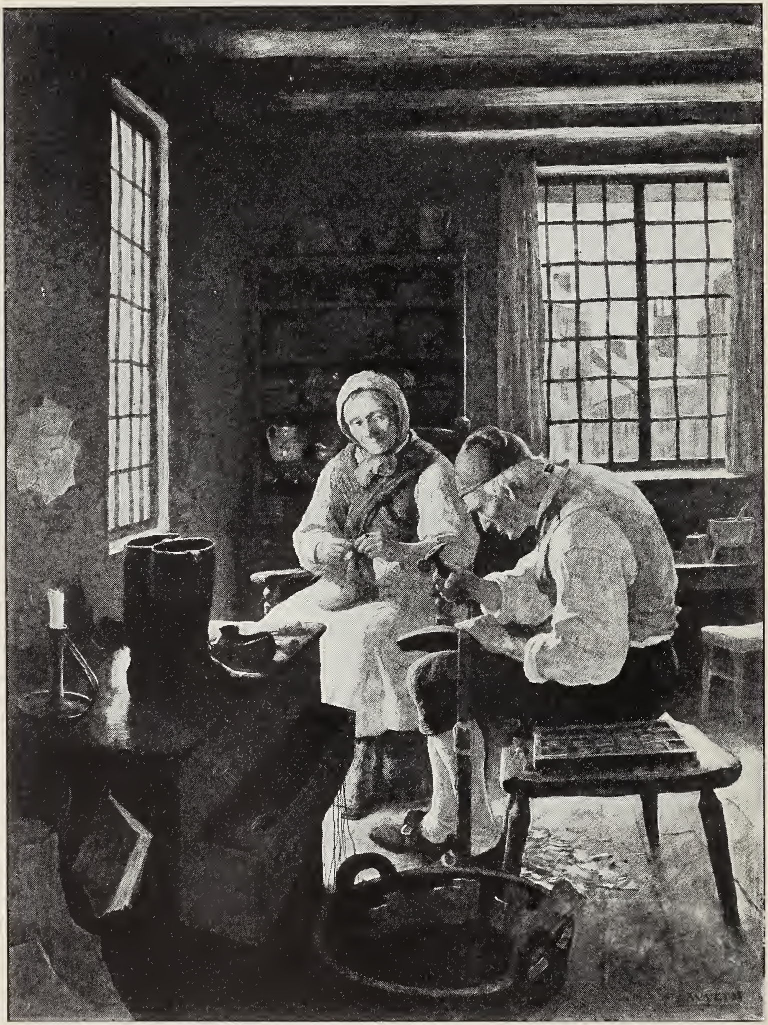
FIG. 15. In every industrial country today hundreds of people are out of work. These men are hoping to find jobs in one of the large manufacturing plants of the United States

VI. MANY OTHER CHANGES IN WAYS OF LIVING AROUND THE WORLD

The changes we have briefly described are only five of a great many that have taken place in the past hundred years.

There are changes, vast changes, in the kinds of work people do to earn a living, in the number of hours they work each day. There are vast changes in the way they find work. Figure 15 reminds us of the growing number of people who in our day cannot find work at all.

There are changes in the way people live in families. There are changes in the games they play, changes in the ways they use their leisure time. There are changes in their sports and their theaters, in their arts and their crafts. There are great changes in the way they run the affairs of their communities and their countries.



N. C. Wyeth

FIG. 16. In contrast to figure 15, here the artist pictures the workshop of the early 1800's, when each craftsman made the whole article and worked in his own home

Turn through the chapters of this book, noting the chief changes in civilization

With the five changes we have briefly described — that is, the changes in population, in the making of things, in transporting and communicating, in interdependence, and in housing — we introduce the problem of our study, *Changing Countries and Changing Peoples*. Before you begin your more careful study it would be well to turn through the entire book, studying the pictures and noting the titles of the units and chapters.

With your classmates make a list of the principal ways that civilizations are changing in different parts of the earth. Discuss this list together until you feel sure that you see what the chief problems are that we should study together.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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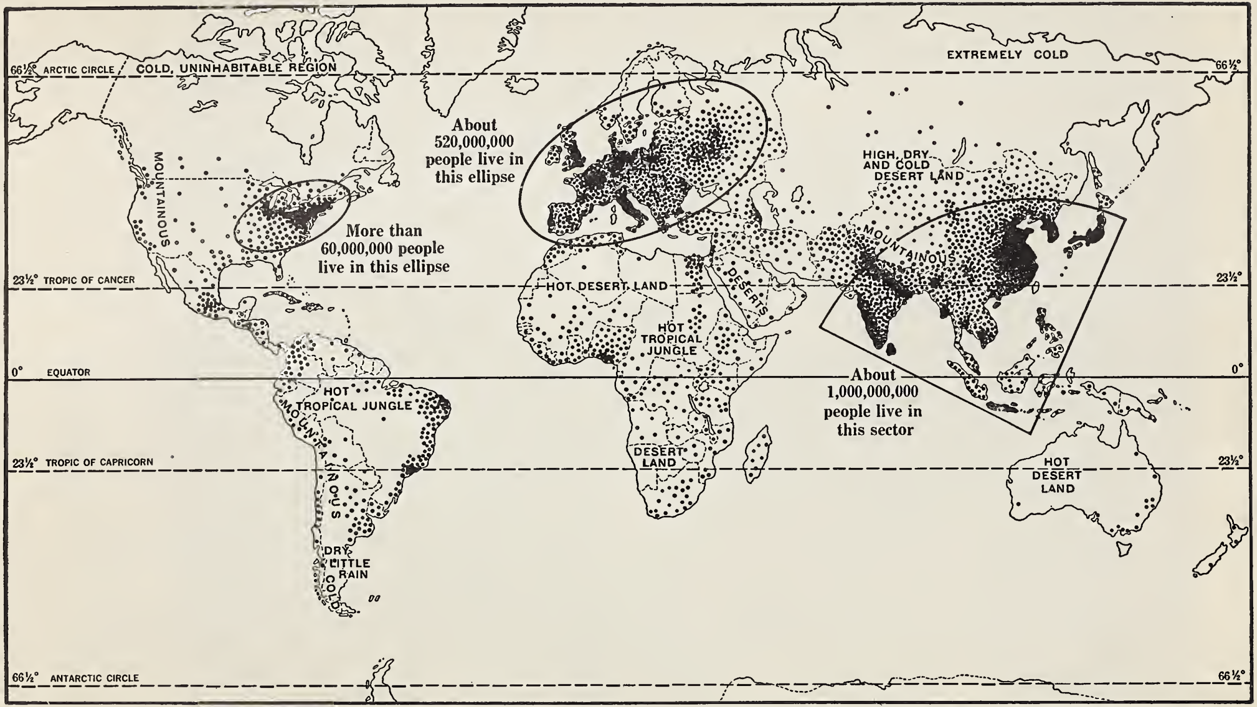

66½° ARCTIC CIRCLE
COLD, UNINHABITABLE REGION
EXTREMELY COLD
66½°
MOUNTAINOUS
About 520,000,000 people live in this ellipse
More than 60,000,000 people live in this ellipse
HIGH, DRY AND COLD DESERT LAND
MOUNTAINOUS
23½° TROPIC OF CANCER
HOT DESERT LAND
DESERTS
23½°
HOT TROPICAL JUNGLE
0° EQUATOR
About 1,000,000,000 people live in this sector
0°
HOT TROPICAL JUNGLE
MOUNTAINOUS
23½° TROPIC OF CAPRICORN
DESERT LAND
HOT DESERT LAND
23½°
DRY LITTLE RAIN
COLD
66½° ANTARCTIC CIRCLE
66½°

FIG. 17. Each dot on the map shows you where 500,000 people are living. Within the three outlined areas about three fourths of the people of the world are living

CHAPTER II

"GEOGRAPHY" AND CHANGING CIVILIZATIONS

Where Are People Living on the Earth?

1. The three centers of dense population

Where on the earth do the greatest numbers of people live? Are the inhabitants of the earth scattered evenly over the continents? From the map of figure 17 you can obtain the answer to these questions.

Find the three areas of dense population: first, southeastern Asia; second, Europe; third, the United States. Where there are a great many dots, millions of people live crowded together. Where there are few dots, people are scattered far apart. The very blackest places mark the location of great numbers of large cities and towns.

In these three small regions live more than 1,500,000,000 of the earth's 2,000,000,000 people.[1] About three fourths of the people of the earth live on one fourth of the land area. Let us examine these three centers more closely.

The first center: southeastern Asia

Note carefully the most densely populated area, that of southeastern Asia. To show this region on the map of figure 17, we have drawn part of a circle the center of which is at a point just southeast of the island of Java in Netherland India. As the radius, the line from the center of the circle to the circumference, we have used a distance which represents 3600 miles. With the center at the point near Java, and this radius, we have drawn an arc which cuts across Asia from Japan to western India.

In that small area live nearly 1,000,000,000 people — Chinese, East Indians, Japanese, Hindus, and others. Nowhere else on the earth are so many people crowded into an equal area. Not in America! Not in Europe! Not in Africa nor Australia!

---

[1] We shall use the round number 2,000,000,000 as an approximate estimate of the total population of the earth.

Some of them live in great cities, such as Tokyo and Shanghai (which have populations of several millions) or Peiping, Calcutta, and Bombay (each with more than 1,000,000 people).

Most of these people, however, are not living in large cities. They live in countless small villages. Most of them have never seen railroad trains, automobiles, telegraphs, telephones, or radios. Their houses are not comfortable structures of stone, brick, or concrete. Their villages are not places of machine manufacturing.

Many of them cannot read or write. They have no newspapers, no magazines, no books.

Can you imagine 1,000,000,000 people living in ways so different from ours? In China 428,000,000 people swarm on the coast plains of eastern Asia. On the little Japanese islands there are 70,260,000 more. In Indo-China and the islands of the East Indies are 100,000,000 more. In India's fertile valleys about 338,000,000 people are crowded together. The area of this region is only twice as large as that of the United States; yet *it has eight times the population.*

The second center: Europe

The area of the oval (see figure 17) enclosing Europe is about half as large as that of the Asiatic region. And half as many people (about 520,000,000) live there. There are the British on their "tight little island," who number 46,000,000. There is France with 42,000,000 and Germany with more than 73,000,000. And there is vast European Russia with 130,000,000 more. Thirty countries altogether, with more than 500,000,000 people.

The third center: the United States

The third crowded area is the United States. You have already studied its size and population. You know about its crowded industrial region of manufacturing cities and towns. You know about its broad agricultural region, where many people are living but where few are really crowded. You know about its great

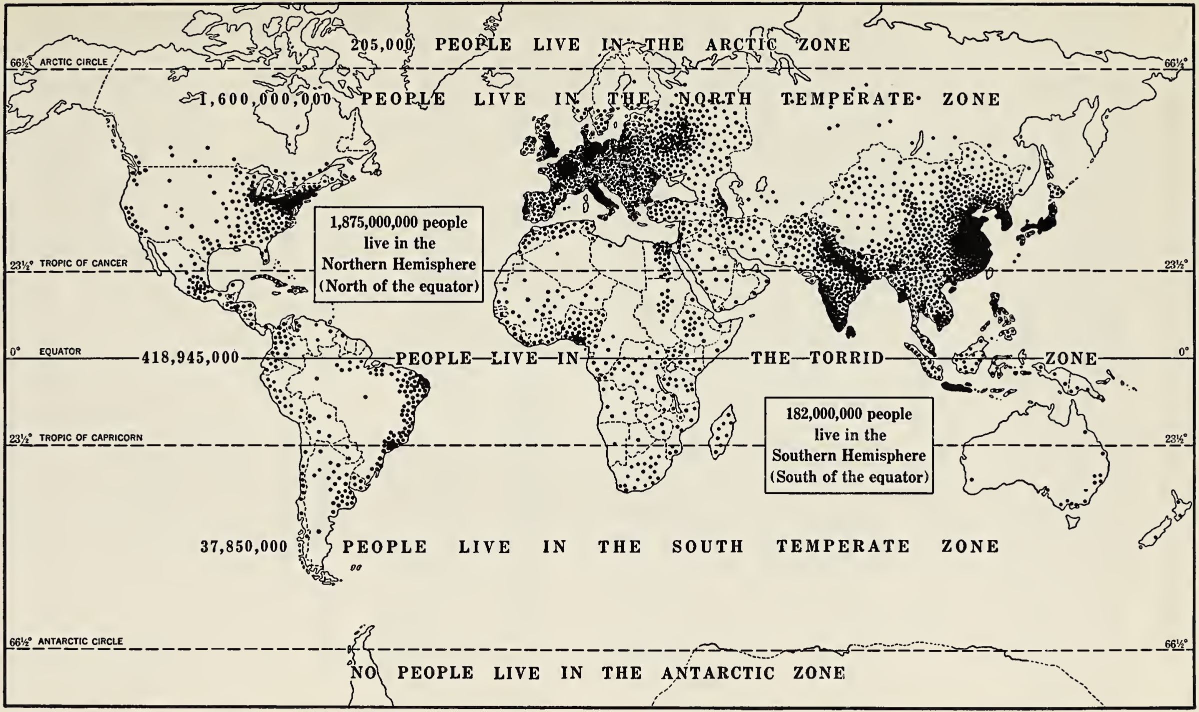

205,000 PEOPLE LIVE IN THE ARCTIC ZONE
66½° ARCTIC CIRCLE
66½°
1,600,000,000 PEOPLE LIVE IN THE NORTH TEMPERATE ZONE
1,875,000,000 people live in the Northern Hemisphere (North of the equator)
23½° TROPIC OF CANCER
23½°
0° EQUATOR
418,945,000 PEOPLE LIVE IN THE TORRID ZONE
0°
182,000,000 people live in the Southern Hemisphere (South of the equator)
23½° TROPIC OF CAPRICORN
23½°
37,850,000 PEOPLE LIVE IN THE SOUTH TEMPERATE ZONE
66½° ANTARCTIC CIRCLE
66½°
NO PEOPLE LIVE IN THE ANTARCTIC ZONE

FIG. 18. This map shows you where the people of the earth live. As you study the textbook, decide why the people live where they do

grazing plains and mountain plateaus, where few people live. While the United States has not nearly so many people as either of the other two areas that we have examined, it is nevertheless the third most densely populated region on the earth.

2. Do the earth's people live in the Northern Hemisphere or in the Southern Hemisphere?

The map of figure 18 gives other ways of studying where people live. It shows how many people of the world live in the Northern Hemisphere and how many live in the Southern Hemisphere — that is, how many live north of the equator and how many live south of it. In the appendix (p. 569) you can find the populations and areas of each of the countries and regions of the earth. From these we have estimated the number of people and the number of square miles of land area on each side of the equator. These facts are summed up in the following table:

	NUMBER OF PEOPLE	SQUARE MILES OF LAND AREA
North of the equator (Northern Hemisphere)	1,875,000,000	37,230,000
South of the equator (Southern Hemisphere)	182,000,000	18,870,000

What do you conclude? In which hemisphere — the Northern or the Southern — do most of the people live? Is the difference between them very large?

One reason why more people live in one hemisphere than in the other

From such a study we can see that it will be very important for us to study the question Why do greater numbers of people live in some regions of the earth than in others?

Examine the map of figure 18 very carefully. The map shows us one specially good reason why people live where they do. We will give you a hint and let you find the reason for yourself. The hint is in these questions: Where is the greatest amount of land area on the earth? Where is the least? To what extent, then, do you think the location of the land of the earth explains why more people live in one hemisphere than in the other?

3. Do the earth's people live in the Eastern Hemisphere or in the Western?

Now imagine the inhabitants of the earth divided into two other hemispheres — the Eastern and Western instead of the Northern and Southern. How shall we divide them?

One way would be to take as the Western Hemisphere all the people living between 0° and 180° west longitude; that is, in the places west of Greenwich (London), England, to the 180° meridian, which passes between the islands of Samoa and Fiji in the Pacific Ocean. This hemisphere would include North and South America, a few scattered islands, and a bit of Europe and Africa.

In the Eastern Hemisphere would be included all the people living between 0° at Greenwich (London), England, eastward to the 180° meridian. This hemisphere, therefore, would include most of the continents of Europe and Africa, all of Asia and Australia, and the islands of the enclosed oceans and seas.

However, it would be very difficult to state definitely the exact number of people in these two hemispheres because, for example, the 0° longitude line cuts right through such places as the British Isles, France, Spain, Algeria and other parts of Africa (see the colored map following page 336). Therefore some people of these countries would be living in one hemisphere and some in the other.

For this reason we shall put all of Europe, Africa, Asia, Australia, and the Eastern islands into the Eastern Hemisphere; and all of North America, South America, the West Indies, and the remaining islands into the Western Hemisphere. The following table, then, gives the figures of population and land area arranged that way, with Antarctica divided between the two.

	Number of People	Number of Square Miles of Land Area
Eastern Hemisphere (Total)	**1,658,503,000**	**37,429,000**
Asia	950,000,000	17,000,000
Europe	550,000,000	3,750,000
Africa	150,000,000	11,500,000
Australia	6,750,000	2,975,000
Islands and part of Antarctica	1,753,000	2,204,000
Western Hemisphere (Total)	**261,860,000**	**17,906,000**
North America	168,000,000	8,000,000
South America	93,000,000	6,800,000
Islands and part of Antarctica	860,000	3,106,000

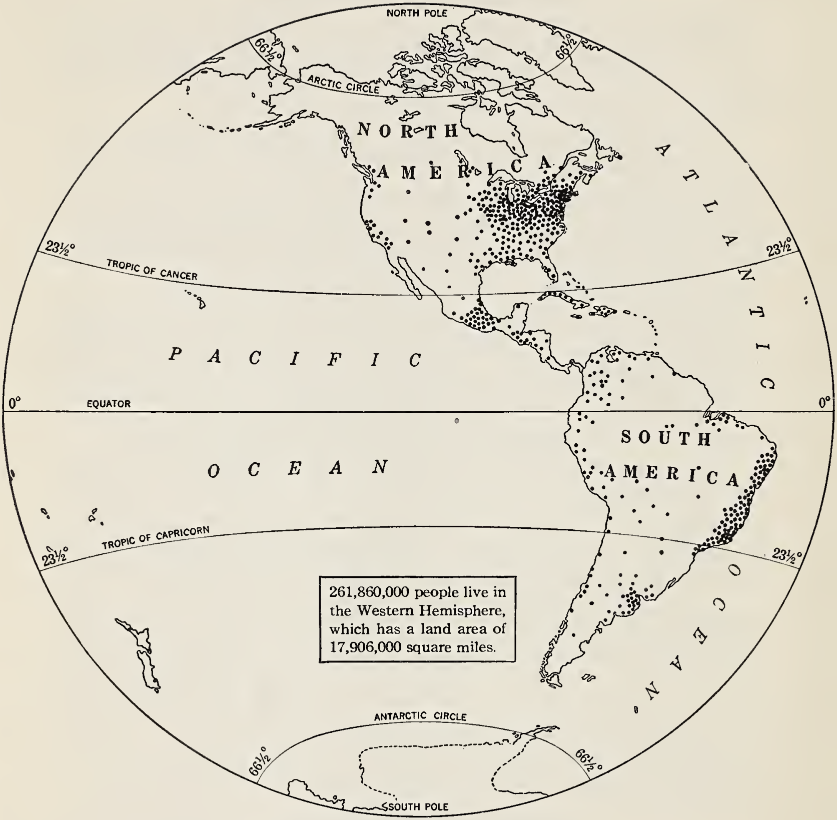
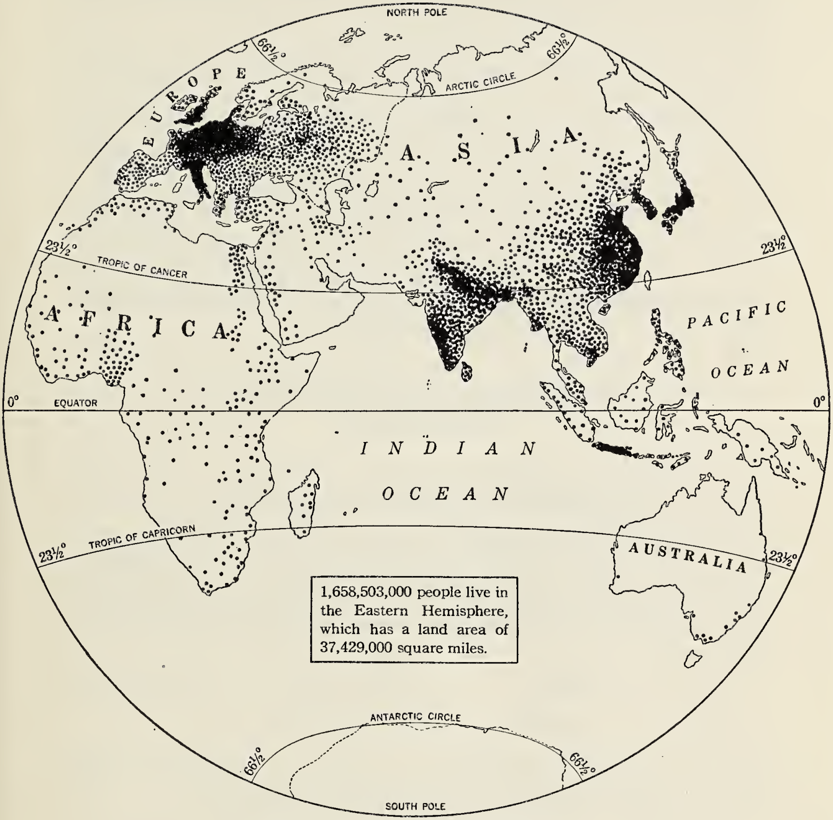

NORTH POLE
66½°
66½°
ARCTIC CIRCLE
NORTH AMERICA
ATLANTIC OCEAN
23½°
TROPIC OF CANCER
23½°
PACIFIC OCEAN
0°
EQUATOR
0°
SOUTH AMERICA
TROPIC OF CAPRICORN
23½°
23½°
261,860,000 people live in the Western Hemisphere, which has a land area of 17,906,000 square miles.
ANTARCTIC CIRCLE
66½°
66½°
SOUTH POLE

Fig. 19. The Western Hemisphere


NORTH POLE
66½°
66½°
ARCTIC CIRCLE
EUROPE
ASIA
23½°
23½°
TROPIC OF CANCER
AFRICA
PACIFIC
OCEAN
0°
EQUATOR
0°
INDIAN
OCEAN
23½°
TROPIC OF CAPRICORN
AUSTRALIA
23½°
ANTARCTIC CIRCLE
66½°
66½°
SOUTH POLE

1,658,503,000 people live in the Eastern Hemisphere, which has a land area of 37,429,000 square miles.

Fig. 20. The Eastern Hemisphere

What do you conclude? In which hemisphere do most of the people live — in the Eastern or the Western? Is the difference in population very large? How large?

One reason why more people live in one hemisphere than in the other

Certainly before we complete our studies we should know why this is. Although we shall learn several very important reasons later, one simple one can be understood now. That is — land! The land area of one hemisphere is very much larger than the other; and, of course, people live where there is land. Study the maps of figures 19 and 20 and the table until you understand what land area has to do with the question Why do more people live in one hemisphere than in another?

4. The six continents of the earth: number of people and land

As we begin our study of how the "geography" of the earth decides the changing of civilizations, we must call to mind some facts we learned in our earlier study. First, find the facts concerning the names and exact locations (latitude and longitude) of the continents. The scientists whom we call "geographers" have called the *seven largest land masses* on the earth CONTINENTS. These are

Asia
Africa
Europe
Australia
North America
South America
Antarctica

All bodies of land surrounded by water and smaller than these seven are called ISLANDS. Outstanding examples are

Greenland
Iceland
Madagascar
Java
Sumatra
Borneo
The Philippines
The Japanese Islands
New Zealand
Hawaii
New Guinea

Thus the seven biggest bodies of land are called continents; the smaller ones are called islands.

Among the continents themselves there are enormous differences in size. Asia, for example, is nearly six times as large as Australia and nearly four times as large as Europe. If you will study the map of figure 20 you will probably agree that Europe should hardly be called a continent. It is really a small peninsula sticking out on the west side of the vast single continent formed by Asia and Europe. This whole land mass is sometimes called *Eurasia.* Probably it would be wise to remember the facts of population and land area both ways; that is, learn them for Europe and Asia as separate continents, and for Eurasia as a single continent.

Bearing these things in mind, turn to figures 19 and 20 and the table on page 27 for the facts on population and land area.

In which continent of the earth do most of the people live? Which has the greatest land area?

Which continent has the second largest number of people? Does it have the second largest land area? How do the other continents compare as to the number of people and size of land area? Does size of land area *always* explain size of population? Why or why not?

The world importance of Eurasia: Europe and Asia

Our studies, then, make the Eurasian continent stand out prominently. It is the great continent of the earth. It is thought to be the ancient home of man a million and more years ago. Certainly it is a "home of man" today! More than 1,500,000,000 of the 2,000,000,000 inhabitants on the earth are in that one continent. Three fourths of the people of the world live there.

Moreover, Eurasia is of greatest importance to our study for another reason. According to our best scientists it was in Asia that ancient man began his struggle to keep alive on the earth; and it was in Europe that modern man, just within the past few hundred years, has developed the giant industrial civilization. It was in Europe that modern states first arose. It was in Europe that languages of 30,000 to 40,000 words were developed by which people were enabled to think more clearly. It was Europeans who, inheriting what Asians had invented thousands of years ago, thought up scientific and mathematical ways of doing things. And it was Europeans who invented the first workable engines and machines, the new systems of transportation and communication. Finally, it was Europeans who explored the whole earth after 1400 A.D., who settled in all the other continents, and who set up the new industrial ways of living around the entire earth.

In short, we see that we must understand what each of the two parts of Eurasia did, if we are to understand the changing civilizations on the earth today.

To this point we have been studying *where* people live on the earth. Now we must learn a little of *why* they live where they do

WHY IS MUCH OF THE EARTH THINLY POPULATED?

Our studies so far have taught us two very important facts: (1) that most of the 2,000,000,000 people of the world live

1. In the Northern Hemisphere
2. In the Eastern Hemisphere
3. On the continent of Eurasia

And (2) that more than three fourths of the people, about 1,500,000,000, live in three densely populated regions:

1. Eastern Asia 2. Europe 3. Northeastern United States

Moreover, we have learned one general fact that helps to explain this; namely, that the great bulk of the land area is in the Northern Hemisphere, in the Eastern Hemisphere, and in the Eurasian continent.

But we saw also that size of land area in a region does not always explain why many people live there. Consider Europe, for example. Europe has one fourth (550,000,000) of all the people of the earth, but only a little more than one thirteenth (3,750,000 square miles) of the total land area. Australia, on the other hand, has about 3,000,000 square miles, but less than 7,000,000 people live there. It has as much land as the United States, but it has only one eighteenth as many people.

Or compare the continent of Africa with our country, the United States. Africa, with 11,500,000 square miles, has nearly four times as much land area as the United States. But in the entire continent there are only 150,000,000 people—only slightly more than the 130,000,000 there are in the United States.

We see, then, that while most of the people do tend to live in the regions of greatest land area, there are important exceptions to the rule. Evidently we must study the problem very much more carefully really to understand it. That is true, and we shall do so in this book; in fact, in the remaining pages of this chapter we shall begin to try to get that understanding.

Two More Reasons Why People Live Where They Do: First, Climate — Temperature, Rainfall, and Winds

Look again at the map of figure 17. When compared with the three areas of densest population the rest of the earth seems to contain few people. In South America and in parts of Africa fairly large numbers are living, but there are vast regions which are almost entirely uninhabited. There are areas totaling millions of square miles but containing almost no human beings. Note the complete absence of dots in five huge regions.

The first is the vast expanse across northern Asia, more than 3600 miles long and 1000 miles wide. Here very few people live. The second thinly populated region is in the extreme northern part of North America. The third, a fairly large bare spot, runs across the northern part of South America. A broad strip across northern Africa is the fourth. Most of the continent of Australia is included in the fifth. In every continent, except Europe, at least one large area is thinly populated, and even in Europe the extreme northern strip is not crowded.

How does it happen that so few people live in these regions while so many gather in the places that we have just been discussing? There are several reasons; but the most important are two very simple ones — the climate and the lay of the land (topography). The reasons are stated on the map in simple phrases — "Extremely cold," "Cold, uninhabitable region," "Hot desert land," "Hot tropical jungle," "High, dry, and cold desert land," and "Mountainous." All of these have to do with climate and topography.

1. Do people live in the cold ice land?

Consider the population in the icy regions of either the arctic or the antarctic.

Far north and far south are vast stretches of ice-covered land which are not inhabited — and miles and miles of icebound seas. Neither land nor sea has been thoroughly explored. Men with dogs have sledded to the North Pole and to the South Pole. A few daring people in airplanes have flown across these bleak, desolate regions; but no people have settled there.

People will not make their homes where they are likely to freeze to death, and in these regions they cannot find wood or coal with which to build fires. It is easy to understand that people will not stay where plants and animals cannot live and where it is extremely cold the whole year round. Does that help to explain why the population in the extremely cold regions is so thin?

South of the most northern icy arctic lands, in the somewhat warmer northern regions, small groups of men and women live in widely separated places. In Greenland, northern Canada, and Alaska, for example, are a few Eskimos and people from Europe and the United States. The vast island of Greenland has about 16,000 persons living in it. The smaller one of Iceland has about 100,000. Across northern Europe and Asia scattered little hamlets can also be found. In these regions the sun shines both day and night during the short summer, but the winter is one long period of twilight and darkness. Some trees, berry bushes, and flowers may be seen in the short summer months. Fur-bearing animals can be trapped. People can catch fish in the moving ocean below by chopping holes through the thick ice.

However, because getting a living is a difficult process and life is generally uncomfortable throughout these vast northern regions, few people live there.

2. Do many people live in the deserts?

Across some of the blank places on the map of figure 17 is lettered "Hot desert land." This is a true description of much of Australia. Australia is a continent in itself, nearly as large as Europe, and yet only about 7,000,000 people live there. Why? Our answer is much the same as it was for the arctic regions — the weather and the land. About all that grows in the part of Australia that is desert is saltbush, and who would want just saltbush for all his meals?

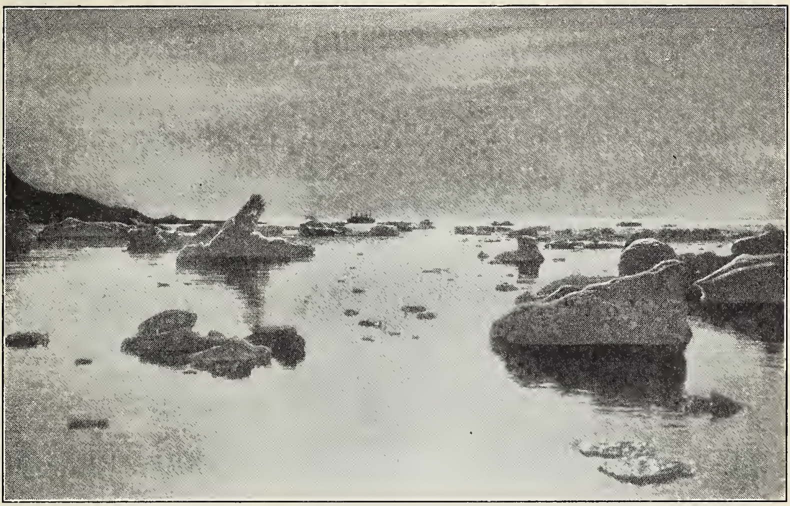


Fig. 21. This photograph shows a summer scene in the arctic region. Notice the barren land at the left side of the picture. The picture helps you to understand why so few people live in this part of the earth

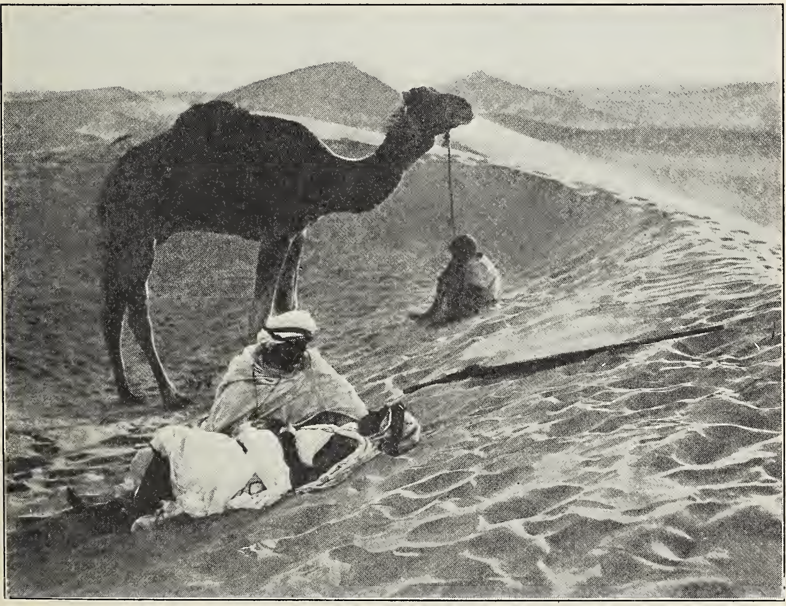


Fig. 22. On the Sahara Desert one can often travel a day or more over hills and valleys of broiling-hot sand without reaching an oasis, where food and drink are to be found. It is not difficult to understand why few people live in the desert

As we have said, people settle and build homes where they can get food and shelter. Now food, as you know, does not grow in the deserts any more than it does in the ice lands. Consider the vast African Sahara Desert and the Arabian Desert, in parts of which not even explorers have dared to go because of the lack of water and food. In the parts we know about, scorching winds and dust clouds cross the vast stretches that lie unprotected beneath the hot, glaring sun. Treacherous, shifting waves of sand move slowly across hundreds of thousands of square miles. Here, except in a few fertile oases, there is no water to drink and there are no plants or animals to furnish food. Here, day after day the year round, the sun beats down upon the earth until the fine dust feels like hot stone beneath one's feet. The traveler's eyes become blind; his tongue dries until it is like a piece of cracked leather. And still the heat continues.

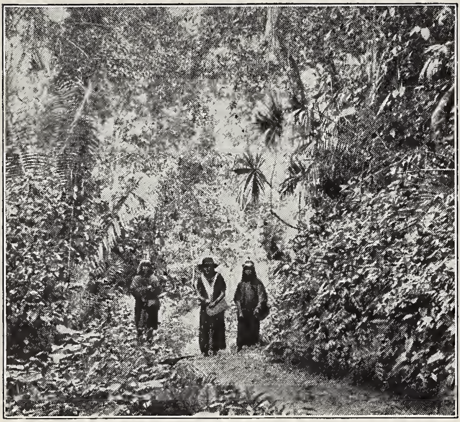


Fig. 23. This picture of the Amazon jungle can give you no idea of its heat and humidity or of the swarming insects which inhabit it; but you can see how difficult living is amid its too abundant vegetation. "Clearing the land" is almost impossible, for trees and vines spring up again with great rapidity. Because of all these things few people live in the jungle

Do you wonder that most people avoid the hot, dry desert?

3. Is population dense in the tropical jungles?

There are two more large white spaces on the map. These are marked "Hot tropical jungle." One is in South America and the other is in central Africa. In these one finds great numbers of plants and animals as well as plenty of water and sunshine. Does it not seem as if men should find here everything that they need? Yet these great regions are thinly settled. Why is this?

Here conditions are the opposite of those in the ice fields of the Far North or in the hot sands of the deserts. There, *not enough* plants and animals could be found to make men comfortable and to provide them with food. Here, there are *too many* plants and animals. The thick growth of vines and trees in jungle lands makes it difficult for men to clear away spaces for homes. Almost as soon as they have cut down the bushes, trees, and vines in front of them and started to plant seeds, the cleared spot is thick with jungle plants again.

And here men have no sooner killed a large number of snakes or wild and dangerous animals than another large number is upon them. Insects come down over them like black clouds. Rain falls for weeks at a time.

And the heat! It rises in waves. Moisture is taken from the earth up to the sky to be turned into rain again. It makes the air seem glassy and solid. The heat draws from the pores of human skins a continuous perspiration. It takes away human strength and leaves men listless and tired.

To be able to live in tropical jungles, people have to be very strong. It is impossible for them to work hard in the terrific damp heat. For these reasons jungle life does not attract many people.

In which "climatic zones" do the people of the earth live?

One way to see how climate determines where people live is to compare the number of inhabitants in each of the five climatic zones. Study the map of figure 18 very carefully. Which one has the most people? Which one the next most people? Which ones the least? Can you tell from the dots on the map about what proportion of human beings live in each one?

From the facts in the appendix (p. 569) we have prepared the table below. These figures of population and land area in each

Zone	Degrees	Population	Land Area (Square Miles)
1. Arctic	North Pole to 66½° N. L.	205,000	1,680,000
2. North Temperate	66½° N. L.–23½° N. L.	1,600,000,000	23,097,820
3. Torrid	23½° N. L.–23½° S. L.	418,945,000	21,922,180
4. South Temperate	23½° S. L.–66½° S. L.	37,850,000	4,400,000
5. Antarctic	66½° S. L.–South Pole	—	5,000,000

zone are, of course, only estimates, but they are near enough to enable you to answer with some exactness the question What percentage of the people of the earth live in each climatic zone?

Which climatic zone of the earth, then, was the most important in building the civilizations of the world today?

Do you think that the amount of land area in the North Temperate Zone was an important reason? Do the map of figure 18 and the table prove that it was the only reason? Was it the chief reason?

As you can see, there were other very important reasons why such a large proportion of the earth's inhabitants settled in the North Temperate Zone.

Second, How Does Topography Affect Where People Live?

Look again at the world map of figure 17. See the region in central Asia marked "High, dry, and cold desert land" and "Mountainous." That vast territory is the highest land of the earth. It goes 4000 feet higher toward the sky than do the highest ranges of North America or South America. Few people live there, for it is very difficult to get a living.

In North America and South America and in Europe are other high mountainous regions where few people live. Note on the map of figure 17 the population of our own western mountains — the Rockies, Sierra Nevada, and Cascades. The population is thin all through that western region of the United States. That is true also in the Andes Mountains of South America and in the Alps in Europe. A few people live in these places, it is true. Here and there in the Andes, at a height greater than that of any mountain peak in the United States, one can find Indian shepherds with their flocks. But these people are few and far between. Their way of life is hard and uncomfortable. Their huts are made of rough stone with grass piled up against them to keep the wind out. Little food grows there.

Summing Up: Most People Live in Fairly Temperate and Level Regions

It appears, therefore, that both extreme heat and extreme cold drive most people away. Extreme dryness, as in deserts,

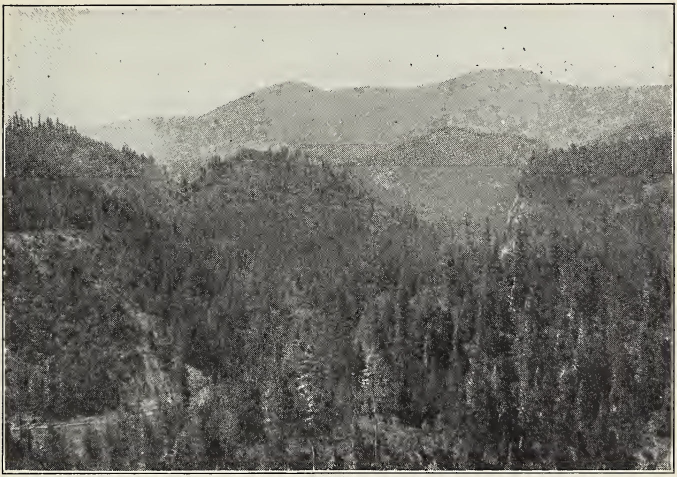


FIG. 24. This scene in the Rocky Mountains illustrates why few people live there. Because of the lay of the land transportation, communication, and the cultivation of the soil are difficult. Very little vegetation can grow on the peaks. It is even impossible to get a living on some of the higher mountains of the earth, which are covered with snow the year round. (Photograph by K. D. Swan. Courtesy of the United States Forestry Service)

and extreme wetness, as in jungles, drive them away also. They avoid extremely high places and tend to live on the low plains.

Most men seem to prefer to live where nature does not go to extremes, where nature is temperate. There are not many Eskimos in the north; there are only a few Indian shepherds high in the Andes Mountains; population is scanty in the deserts; and not many men live in the tropical jungles of Africa or in the saltbush of Australia. Most of the people in the world have been able to find better places than these in which to live, places where it is easier to get food, to build homes, and to keep comfortable. They search out the regions where it is fairly dry but not too dry; where it is fairly warm but not too warm; where it is fairly wet but not too wet; and where it is fairly level.

We can sum up our study to this point by saying, "Most people on the earth today tend to live where the climate is fairly temperate and where the land is fairly level."

Different Ways of Living on the Earth

You have learned that the peoples of the different regions of the earth do not live in the same ways. Their houses are different; their clothes are different; their customs, their governments, and their amusements are different. We say of them that they have built up different *civilizations*. Europe, as a region, appears to have one kind of civilization. Asia has another. In parts of North America and South America are others. In Africa are still others.

Within each of these regions, however, the people in the separate countries also have very different ways of living. The French people are different from the Germans, or the Swiss, or the Spaniards, or the Italians, all of whom live close to the boundaries of France. In Asia the Chinese and Japanese — near neighbors — live very differently. Each country speaks its own language (or languages), cooks its food and builds its houses in its own way, and has its own recreations. Each one, we say, has its own civilization.

The Two Chief Kinds of Civilization: (1) Industrial and (2) Agricultural

Although there are many differences between the peoples of the earth, it will help us if we think of their ways of living as either industrial or agricultural. Let us explain what is meant by these two terms.

In our study of the ways of living in the United States in *Our Country and Our People*, we saw a good example of *industrial civilization*. We found that most of the people in the United States live in towns and cities. They depend upon power-driven machinery, mechanical transportation, and electrical communication. Craftsmanship has almost entirely disappeared, and even farming is carried on largely with the aid of machines.

People in some other parts of the earth are living in what we call *agricultural civilization*. They live in farming villages. They have few factories and almost no engines or machines. Human and animal muscles or crude windmills and water wheels are their only sources of power. They trade little with outside communities, and trains or automobiles are almost unknown.

Throughout this book we shall study the best examples we can find of these two ways of life in *industrial civilizations* and *agricultural civilizations.*

To understand these forms of civilization we must study the countries which produced them.

The 2,000,000,000 people of the earth are divided among 74 countries and 2000 tribes of nature peoples. In this book we shall omit the nature peoples altogether. It is impossible, of course, for us to study each of the 74 countries thoroughly. Even if there were time in your school hours or space in this book, you would not be able to remember even all their names. Certainly you could not remember their characteristics, or the likenesses and differences between them. Therefore we must center our attention upon a few important ones.

THE EIGHTEEN COUNTRIES THAT WE SHALL STUDY

I. The powerful industrial countries of Europe
    1. Great Britain 2. France 3. Germany
II. The changing agricultural countries of Europe
    1. Russia 2. Italy 3. Denmark 4. Norway 5. Sweden
III. A rapidly industrializing country of Asia
    Japan
IV. The changing agricultural countries of Asia
    1. India 2. China
V. The changing agricultural countries of the Americas
    1. Canada 2. Argentina 3. Brazil 4. Chile
VI. A changing agricultural country of Africa
    The Union of South Africa
VII. The changing agricultural countries of the South Pacific
    1. Australia 2. New Zealand

We have chosen to study these eighteen countries for three reasons. *First,* together they contain more than 1,250,000,000 people — almost two thirds of the inhabitants of the earth. The study of their ways of living, therefore, will tell us how most of the people of the earth live.

Second, these eighteen countries include people of the chief races of the earth and of the different kinds of civilization. By studying them we shall be learning the chief characteristics of the civilizations of the entire earth.

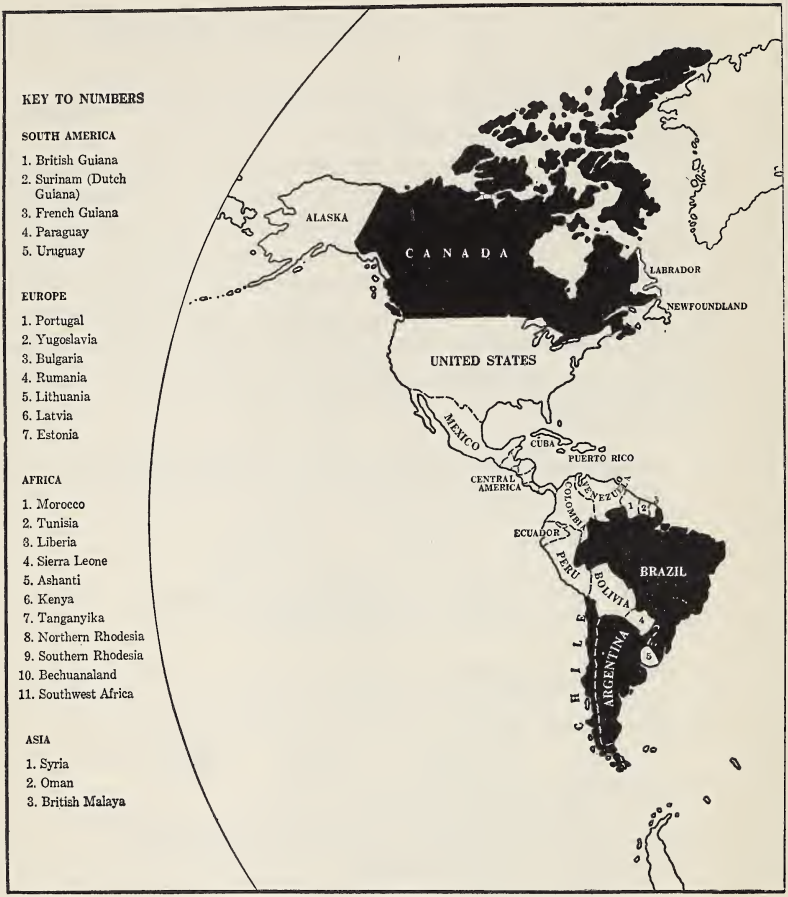
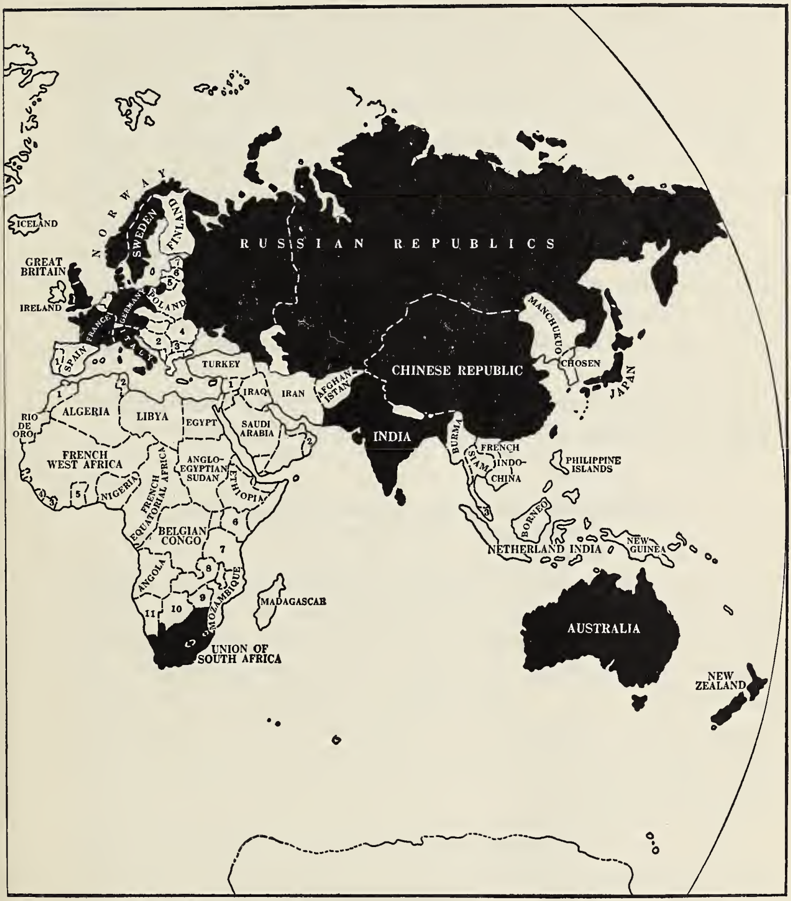

KEY TO NUMBERS
SOUTH AMERICA
1. British Guiana
2. Surinam (Dutch Guiana)
3. French Guiana
4. Paraguay
5. Uruguay
EUROPE
1. Portugal
2. Yugoslavia
3. Bulgaria
4. Rumania
5. Lithuania
6. Latvia
7. Estonia
AFRICA
1. Morocco
2. Tunisia
3. Liberia
4. Sierra Leone
5. Ashanti
6. Kenya
7. Tanganyika
8. Northern Rhodesia
9. Southern Rhodesia
10. Bechuanaland
11. Southwest Africa
ASIA
1. Syria
2. Oman
3. British Malaya
ALASKA
CANADA
LABRADOR
NEWFOUNDLAND
UNITED STATES
MEXICO
CUBA
PUERTO RICO
CENTRAL AMERICA
VENEZUELA
COLOMBIA
ECUADOR
1
2
PERU
BOLIVIA
BRAZIL
4
5
CHILE
ARGENTINA

FIG. 25. The eighteen countries of the world about

For example, Great Britain, France, and Germany are three of the four leading industrial nations. (You have already studied the fourth, the United States.) The manner in which these three countries have developed industrial ways of living illustrates the way in which the same thing is happening in other parts of the world. Great Britain, France, and Germany, therefore, are the industrial countries which we have chosen.


ICELAND
GREAT BRITAIN
IRELAND
NORWAY
SWEDEN
FINLAND
RUSSIAN REPUBLICS
FRANCE
GERMANY
POLAND
ITALY
SPAIN
TURKEY
IRAQ
IRAN
AFGHANISTAN
CHINESE REPUBLIC
MANCHUKUO
CHOSEN
JAPAN
INDIA
BURMA
SIAM
FRENCH INDO-CHINA
PHILIPPINE ISLANDS
BORNEO
NETHERLAND INDIA
NEW GUINEA
AUSTRALIA
NEW ZEALAND
RIO DE ORO
ALGERIA
LIBYA
EGYPT
SAUDI ARABIA
FRENCH WEST AFRICA
NIGERIA
FRENCH EQUATORIAL AFRICA
ANGLO-EGYPTIAN SUDAN
ETHIOPIA
BELGIAN CONGO
ANGOLA
MOZAMBIQUE
MADAGASCAR
UNION OF SOUTH AFRICA
1
2
3
4
5
6
7
8
9
10
11

which we shall study are shaded in the map

Similarly, the study of Russia will tell us much of the changing life of a vast population in eastern and central Europe.

So, too, India and China are excellent examples of the agricultural civilizations of the Orient.

Third, these eighteen countries have been chosen because they, with the United States, will undoubtedly play a most important part in the modern world during your lifetime. This is shown clearly either by their vast land area and their large population or by the increasing development of their power resources. Great Britain, France, and Germany have already played the leading part in spreading European ways of living over the earth. Russia has one of the world's largest populations and controls a vast territory stretching across one continent and into another. India, China, and Japan are beginning to play a very important part in the affairs of the modern world. Argentina, Brazil, and Chile are the leading countries of the vast South American continent. They have changed so rapidly in the past few years that already they have become the largest food-selling region in the world. Their importance in world affairs will undoubtedly increase in the coming years.

It is of the greatest importance that you, as an American citizen, understand the civilizations of these countries.

We shall study briefly the "history" as well as the "geography" of each civilization

To understand these changing civilizations in the modern world, *we must see and feel them changing.* We must see what they were in somewhat earlier times. We must try to understand what has caused them to change. We must note their chief characteristics today. Thus, only by studying how they have changed or are changing their civilizations, only by contrasting clearly what they were in former times with what they are today, can we understand them.

This is especially important because today peoples all over the earth are changing their ways of living. During the past hundred years the countries of western Europe have been changing from agricultural to industrial civilizations. More recently the peoples of eastern Europe, southern Africa, and South America have begun to go through these same changes. Today all over the Far East, ways of working, means of transportation and communication, social life — all are undergoing rapid change. Hence it is important to study the history of each of these civilizations and to compare their ways of living at various times with those of today.

Then in later units of work we shall see how certain agricultural countries of the world changed to industrial countries after 1750, and how many others are changing today.

Turn through the whole book rapidly. Note the chapter titles and the principal topic headings to get an idea of the many problems we shall discuss.

Important Questions Which Will Guide Our Study

As you study each civilization — British, French, German, Russian, East Indian, Chinese, Japanese, and Latin American — try to answer the following important questions:

1. Is this country an agricultural or an industrial country? To what extent has the Industrial Revolution already changed its civilization?
2. How does the standard of living of this country compare with that of the United States and of the other countries that I have studied?
3. Are the people of this country self-sufficient? How much do their lives depend upon those of other peoples?
4. In what ways are the industrial and agricultural countries that I have studied different? In what ways are they alike?
5. Are there any special things about the civilization of this people that make it different from all other civilizations?
6. What is there about the way of living of this people which I should like to see more of in my country?

In *Our Country and Our People* you learned many of the chief characteristics of industrial civilizations. One is their *interdependence*. We hope that before you complete your junior-high-school studies you will be able to explain

how it has come about that each part of the world depends upon other parts of the world, and that injury to one part affects the whole world

NOTE. The readings for this chapter will be found on page 46.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

BEEBE, WILLIAM. Jungle Days. G. P. Putnam's Sons, New York, 1925. An interesting book of life in jungle regions.

DUVAL, E. W. This Earth We Live On. Frederick A. Stokes Company, New York, 1927.

HUNTINGTON, ELLSWORTH, and CUSHING, SUMNER W. Modern Business Geography. World Book Co., Yonkers, New York, 1925. A useful geography for reference work.

VAN LOON, HENDRIK W. Man, the Miracle Maker. Horace Liveright, Inc., New York, 1928. You will be delighted by the text and pictures in this book, which show the cleverness of man, the inventor.

VAN LOON, HENDRIK W. The Story of Mankind. Boni & Liveright, New York, 1921. You will wish to refer to this book, which is well written and well illustrated.

WILLIAMS, ARCHIBALD. The Romance of Modern Exploration. J. B. Lippincott Company, Philadelphia, 1910. Dramatic stories of exploration in mountain, desert, jungle, and polar regions. See Chapters XVII–XX, XXII, XXV, and XXVI.

UNIT II

HOW ENGLAND BECAME MODERN INDUSTRIAL GREAT BRITAIN, THE CENTER OF WORLD TRADE AND OF A GREAT EMPIRE

Throughout this book we shall be studying one main idea — changing civilizations in the modern world. *We shall learn how the ways of living changed in different countries during the Industrial Revolution. Since 1800 every country in the world has changed. Some have changed very rapidly, others more slowly; but every country has changed in one or more ways. As a result, half of the people of the earth live today in a new civilization.*

Four countries — Great Britain, France, Germany, and the United States — played the most important part in developing our new civilization. Of these four countries Great Britain — or England, as she is frequently called — was the leader.

Our next task, therefore, is to study how England changed from a little medieval country of manors to a great industrial empire. That will be the work of Chapters III, IV, V, and VI. In Chapter III we shall learn how the Industrial Revolution changed the England of crafts and farming villages into the Great Britain of manufacturing cities and towns. In Chapter IV we shall see England changing in another respect: we shall see her building up a great fleet of merchant ships, increasing her trade with distant parts of the world, and coming to depend on the outside world for food and other necessities.

In Chapters V and VI we shall learn another result of the changing civilization — the building of an empire by an industrial country. Since 1600 England and other countries have spread European civilization around the world. That is, European people have gone to live in each of the other continents and built farms, towns, and cities much like those in Europe. In Chapters V and VI we shall have our first glimpse of how this was done by Great Britain. In Chapters VIII and X we shall learn how it was done by France and by Germany. First, however, we must make a careful study of the change that took place in England.

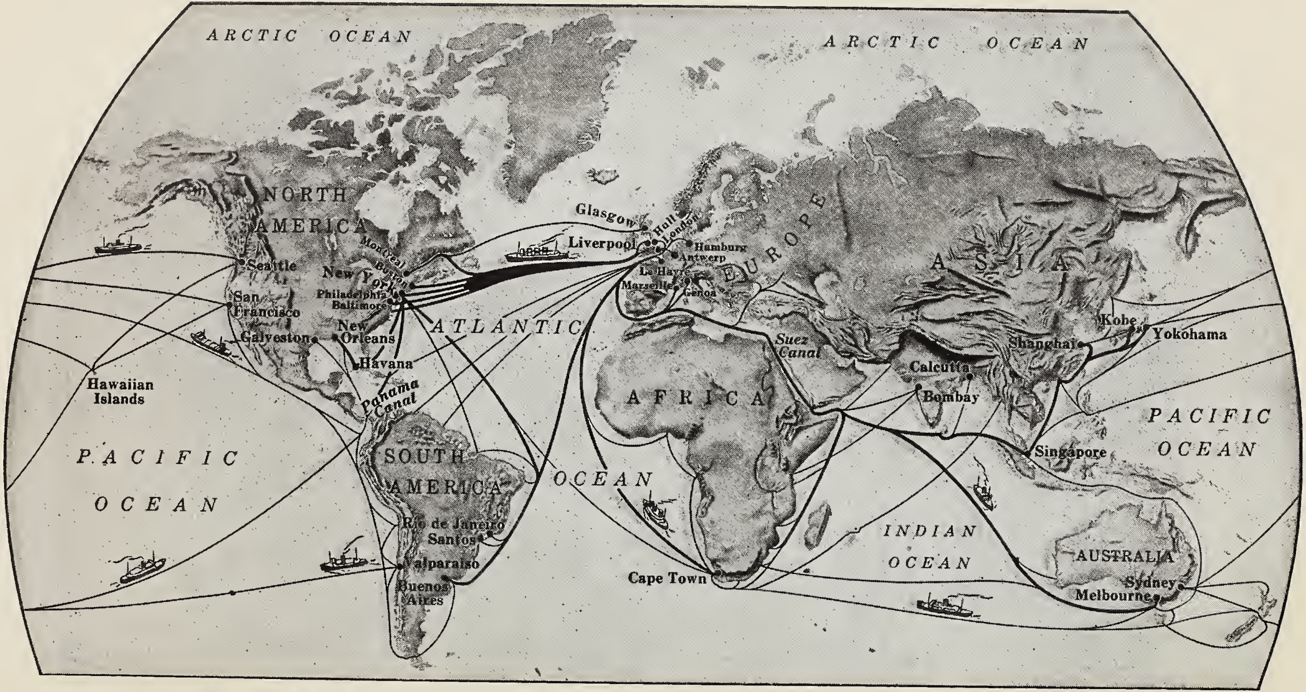

ARCTIC OCEAN
ARCTIC OCEAN
NORTH AMERICA
Seattle
San Francisco
Montreal
Boston
New York
Philadelphia
Baltimore
New Orleans
Galveston
Havana
Panama Canal
Hawaiian Islands
PACIFIC OCEAN
ATLANTIC OCEAN
SOUTH AMERICA
Rio de Janeiro
Santos
Valparaiso
Buenos Aires
Glasgow
Liverpool
Hull
London
Hamburg
Antwerp
Le Havre
Marseilles
Genoa
EUROPE
ASIA
AFRICA
Suez Canal
Cape Town
Calcutta
Bombay
INDIAN OCEAN
Shanghai
Kobe
Yokohama
Singapore
PACIFIC OCEAN
AUSTRALIA
Sydney
Melbourne

FIG. 26. The trade routes of the world today. The width of the lines indicates the importance of the trade which is carried on over them

CHAPTER III

HOW ENGLAND CHANGED FROM THE ENGLAND OF MANORS TO MODERN INDUSTRIAL GREAT BRITAIN

Today Great Britain[1] (or England, as she is frequently called) is a country of engines and machines, of railways and motorcars, of telegraphs, telephones, and radios. Today Great Britain has the greatest fleet of merchantmen and the largest navy in the world. She is the center of world trade and controls one of the most powerful empires of the earth.

Today four out of every five of Great Britain's people live in cities and towns. Four out of every five work there — in factories, stores, offices, schools, or hospitals, on trains, motorbusses, or boats, in subways, and the like. Only one out of every ten is a farmer.

Today the people of Great Britain travel freely within their own country. Thousands, having traveled either for business or for pleasure to other continents of the globe, know how the people of other civilizations live.

What a contrast to the England of the Middle Ages! Then almost everyone lived in the country — either as a serf or as a freeholder or as a great landowner. In those days a trip even to a small town close by was a great event for most of the people. Every villein and cotter grew his own food and that of his lord, made his own clothing of wool from his own sheep, and kept his own house. There were a few craftsmen in the towns who worked for wages, but only a few. The villages were tiny, the towns were small, and cities were few and far between.

Several things brought about a startling change in England, but, of course, it did not happen all at once. England changed slowly at first; then, after 1800, much more rapidly.

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[1] Great Britain, or, to give the full title, "The United Kingdom of Great Britain and Northern Ireland," comprises England, Scotland, Wales, and Northern Ireland. The British Isles includes these and Ireland (or Eire) as well.

The Climate of Great Britain

If you look at the map following page 336, you will see that Great Britain is located farther north than is our own country. Much of the northern boundary of the United States runs along the 49° north-latitude line, and the temperature there stands very low in winter; in fact, it is often below zero. Notice that the southern tip of the British Isles is about 50° north latitude; the northern tip is about 60° north latitude. This means that the British Isles lie nearer the North Pole than does any part of the United States.

What temperature should you expect in Great Britain, since it is so far north? Would it be colder or warmer than the United States? Actually the temperature in the British Isles rarely goes below freezing. In spite of being so far north, England has a mild climate and a green countryside most of the year. Let us see why.

In the first place ocean waters make lands which they border warmer in winter and cooler in summer than are lands in the same latitude in the interior of continents. As it happens, the ocean waters which border the coast of the British Isles have been warmed by the Gulf Stream and the Gulf Stream Drift, a widespread current of warm water which flows across the North Atlantic Ocean toward European shores from the warm regions of the Caribbean Sea and the Gulf of Mexico. As the Gulf Stream approaches Europe, it divides. Part of it, sometimes called the Gulf Stream Drift or the Atlantic Drift, spreads warm water along the coasts of the British Isles and Norway. The other part swings down past Spain and returns to the tropical seas.

The prevailing winds, the westerlies, blow over the 3000 miles of the Atlantic Ocean from west to east, carrying to the British Isles and northwestern Europe air warmed by the Gulf Stream and the Gulf Stream Drift. For this reason this part of Europe is much warmer than the part of North America which lies in the same latitude but on the opposite side of the ocean.

What about rainfall? Again we find the explanation in the Gulf Stream and the westerly winds.

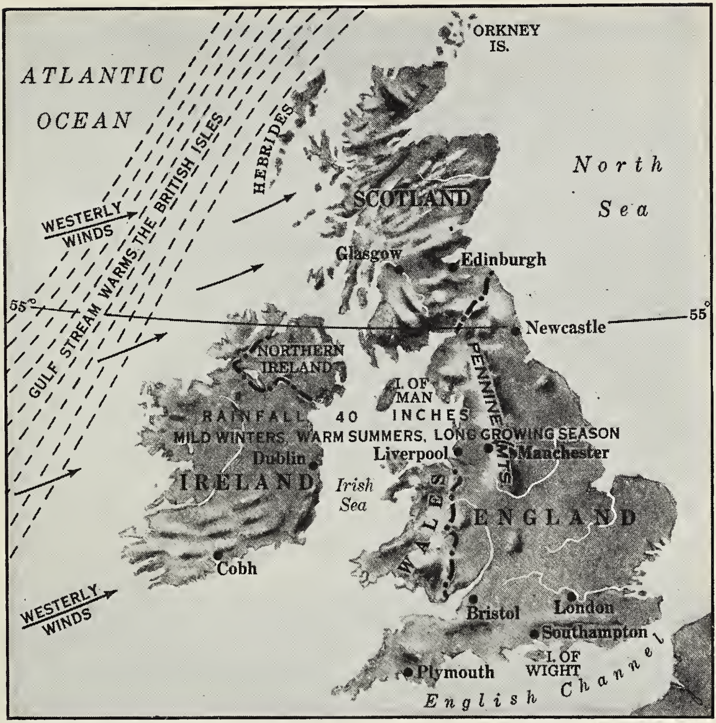
ORKNEY IS.
ATLANTIC OCEAN
HEBRIDES
GULF STREAM WARMS THE BRITISH ISLES
North Sea
SCOTLAND
WESTERLY WINDS
Glasgow
Edinburgh
55°
Newcastle
55°
NORTHERN IRELAND
I. OF MAN
RAINFALL 40 INCHES
MILD WINTERS, WARM SUMMERS, LONG GROWING SEASON
PENNINE MTS.
Liverpool
Manchester
Dublin
IRELAND
Irish Sea
WALES
ENGLAND
Cobh
WESTERLY WINDS
Bristol
London
Southampton
I. OF WIGHT
Plymouth
English Channel

FIG. 27. This map will help you to understand much about the climate of the British Isles

As the winds blow across the Atlantic and over the Gulf Stream they become moist as well as warm. As they pass over Great Britain rain falls to the earth. A large part of the land receives from 25 to 40 inches of rainfall a year. The western coast and mountainous parts have a yearly rainfall of as much as 70 inches. This rain is well scattered throughout the four seasons, and helps to explain why the British and Irish countrysides are green during most of the year.

We see, then, that although Great Britain is farther north than the United States, it has a mild temperature and fairly good rainfall the year round.

I. The "Black Death" Started England on the Way to Change

One important change in English life came with great suddenness — the tragedy of the Black Death.

In 1348 and 1349 a contagious disease — the bubonic plague, known as the Black Death — swept over Europe. It started in Asia and was brought westward into Europe. From eastern Europe it spread like wildfire. By April, 1348, it had reached the northern cities of Italy. Four months later it was sweeping over Germany and France. It leaped the English Channel, and in the year 1349 spread over all England.

The Black Death was the worst epidemic of disease known to the Western world. So deadly was it that persons died two days after catching it. Remedies were unknown, and the European peoples died by hundreds of thousands. Since accurate records were not kept in those days, we do not know for certain how many died; but it is known that in one district in France 90 per cent of the inhabitants died, and in another, 95 per cent.

Within a year half the population of England was wiped out. Whole families of laborers on manors died at one time. Landowners had a hard time to find people to farm their land, and many lords had almost no workers left on their estates.

II. During Several Hundred Years the Landowners Slowly Took the "Common Land" Away from the Peasants

To understand the second change that came about in the lives of the people, we must remember the part played by the common land.

Throughout the earlier Middle Ages the pasture and the waste land and woodland were used both by the serfs of the manor and by the lord as grazing land for their animals. Because everyone had the use of these plots of ground, they were usually called commons; that is, they were used in common. The serfs depended on the commons to keep their cows for milk and butter. They also needed the waste land and woodland for wood and peat to cook their food and smoke their bacon.

After the Black Death an important change gradually came about in the agriculture of the country and in the lives of the

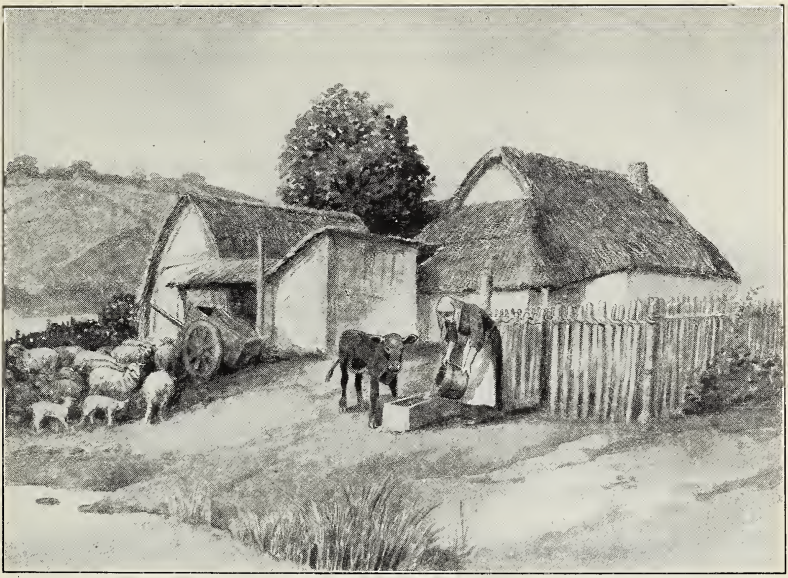

FIG. 28. After the Black Death swept over England, many sheep and other domestic animals were raised on thousands of small farms like this. Sheep-raising was profitable, and one person could take care of many sheep

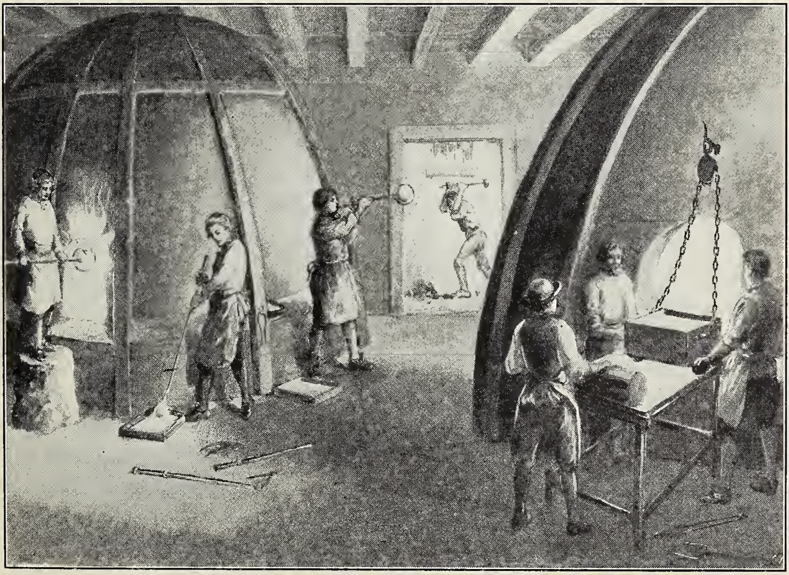

FIG. 29. Here we see an early English factory. At the right the ingredients for making glass have been melted. On the left a craftsman is shown blowing the liquid glass into shape

people. With fewer peasants to farm the land, the English landowners turned to sheep-raising, using more and more of their land for pasture and less for the raising of crops. Great Britain had always been noted for fine sheep, and sheep-raising brought in large profits through the sale of wool and mutton. Moreover, sheep required little care, since one shepherd could be hired for a small wage to tend a great flock. As a result, sheep-raising became more general throughout Great Britain.

However, to raise sheep in large numbers the landowners needed more land. So they began to fence in the common land of the manor, shutting out the peasants' cattle and cutting off their supplies of peat and wood. This system of fencing off the commons and shutting out the peasants was called land enclosure. It was being done even in the 1200's, and went on slowly for 600 years.

The desire to raise sheep was not the only reason for the enclosure, however. The city and town populations were growing. Not only was more wool needed but more food too. Because the peasants' crops were really much smaller than those which could be raised on the land, many landowners thought that by taking the commons they could farm more profitably. They could hire fewer men, and these would be willing to work hard and to try new ways. This plan seemed successful; for gradually farming did improve, and more food was produced on the manors than had been raised in the earlier days.

How the Land Enclosures Affected the Peasants

But when the peasants could no longer use the commons for their own farming, they suffered much hardship and became poorer than ever. They sold their cows and their hogs one by one. Many of them finally had only their small gardens, where they could still grow a few vegetables and perhaps raise a pig and a few chickens. Others were forced to work for the landowners for small wages.

More and more, as life changed, the peasants turned to crafts in order to earn money to pay for their food, clothing, and tools. They were becoming wage-earners, depending entirely upon other people for their employment. They received weekly payments

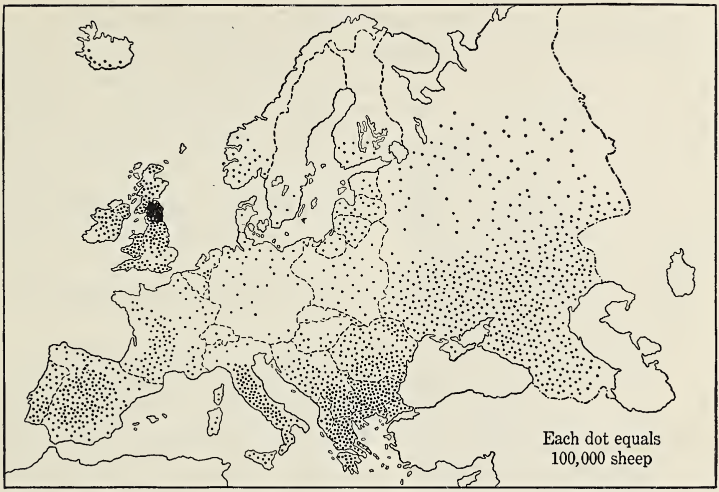

Fig. 30. The distribution of sheep in Europe today. A map such as this made in the 1400's would have shown that even then Great Britain raised more sheep per square mile than any other country in Europe

and spent these among the shopkeepers for bread, flour, butter, and clothing, even as we do today.

So during the 1500's and 1600's manor life was changing. More people began to work for wages, both on the farms of the landowners and in the growing crafts. Village life changed too, as the cottagers moved away into the towns to hunt for work. They could move away in the beginning, because the Black Death had upset the old customs. As the number of serfs became smaller and smaller, those remaining were freer to do as they pleased. Sometimes it happened that every living soul moved away from a village and left it deserted.

Clothmaking and Other Handicrafts Were Flourishing in English Homes in the 1700's

By 1700 many of the English cottagers had become excellent craftsmen. Great numbers of them began to make cloth in their homes. Travelers who wrote of their tours through Great Britain in the 1700's spoke of the fact that many English cottages were like little beehives, humming with industry.

Perhaps you are wondering how these people were able to sell all the cloth they were weaving. About this time a new kind of trader was seen in the small English villages — a trader who was not interested in *many* kinds of goods but only in *one*. These merchants traded in cloth only. They went out in good or bad weather to the doors of the weavers' cottages. There they bought the cloth, packed it on their horses, and sent it by pack-horse trains to London or to other cities. After that it was shipped to foreign countries.

Even as early as the 1700's Great Britain was building up a world trade in cloth.

Before long the making and selling of cloth had become a thriving business. Some traders bought not only cloth but also raw wool. To one group of cottagers they gave wool to be carded (combed) and spun into yarn. Later they collected the yarn and gave it to weavers to make into cloth. To each of the workers they paid wages.

Thus by buying raw materials and hiring workmen to spin and weave, and by selling the finished product, these clothiers, or traders in cloth, gradually built up good businesses. How is this system, which had grown up by 1750, like our modern system of manufacturing things? How is it different?

Of course there were many other crafts besides those of spinning and weaving woolens. Long before 1700 English clothiers were bringing raw silk from China and raw cotton from India and Egypt. Workers wove these products into silk and cotton goods. Furthermore, in Scotland and Ireland much fine linen was woven out of flax.

In the towns and cities crafts other than those dealing with clothmaking were growing. There was pottery-making, for example. You have doubtless heard your mother speak of Wedgwood pottery, which housewives cherish even today. In the 1700's Josiah Wedgwood, a pottery-maker and prominent citizen of the time, had just begun to make a new cream-colored ware which became very popular. He engaged more and more skilled workmen to manufacture his goods. His pottery became known the world over, especially the colored pottery (often blue) with white figures in relief. Today, as in the 1700's and the 1800's, the Wedgwood mark on a vase means quality and beauty.

At the same time skillful English cabinetmakers were creating new types of beautiful furniture. Have you heard of Chippendale secretaries, Sheraton sideboards, or Hepplewhite tables? These were first made in the days we are discussing. The styles of furniture made by these cabinetmakers of the 1700's have been copied over and over again, right down to the present day.

At Sheffield, England, knives and various kinds of hardware were being made in shops run by water power. We know a little about these shops from a visitor, who said of them, "Many grindstones are turned by a set of wheels which all receive their motion from one water wheel."

Printing and bookbinding and the making of handsome paper had become good businesses. Other trades also began to flourish; for example, the making of buttons, glassware, soap, tools, and fine jewelry — all handmade.

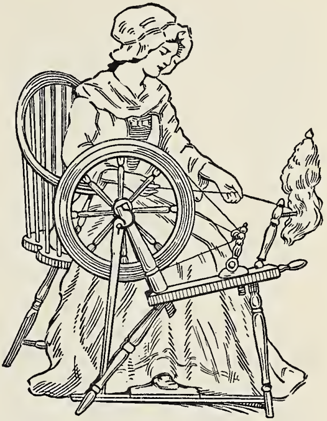

FIG. 31. By 1700 the whir of the spinning wheel was to be heard in many English homes. The women of the house usually did the spinning while the men usually did the weaving. (See also figure 32)

AS PEOPLE TURNED TO HANDICRAFTS (1500–1700) TOWNS GREW RAPIDLY

The old manor and village life of England was certainly changing. England was becoming more and more a country of towns and cities. Some villages where particular crafts had developed grew into busy manufacturing towns. As the years passed the towns became larger and larger cities. London is a good example. About 1500 it contained only 50,000 people. Before 1700 its population reached a half million. Manchester, Liverpool, Birmingham, Leeds, and other towns also grew into small but busy cities during this period.

In the 1700's people were flocking into the cities to find work. This was especially true of English boys and girls. After hearing about the pleasant and exciting life of the towns and cities and about the money to be made there, they left their country homes in great numbers.

GROWTH OF THE POPULATION OF LONDON	
In 1509	50,000
In 1532	62,000
In 1593	152,000
In 1605	224,000
In 1661	460,000
In 1696	500,000

Before 1800 a great many of the English people had gone to live in towns. Many of them became rich tradesmen and craftsmen. Others worked for low wages, or wandered hungry through the streets looking for work. Still others signed up with sailing vessels and left for far-off parts of the world.

In the 1400's England had been the "backwoods" of Europe, but now it was becoming a center of commerce and of busy shops. The peasants of 1100 were becoming town and city dwellers, wage-earning craftsmen, instead of serfs forced to live on a lord's land. And as these things happened their knowledge of the world gradually widened.

THEN, AFTER 1700, BEGAN THE INDUSTRIAL REVOLUTION, AND ENGLAND CHANGED MORE THAN EVER BEFORE

In 1700, in spite of the recent changes, most of the English people were still engaged in farming, handicraft, shipping, and trade. There were no machines as we know them today, and no engines to run them. All the work was done by hand, and the power was provided either by muscles or by rather crude water wheels and windmills. Goods still had to be transported by pack horse and freight wagon or boat. There were no railways, no motorcars, no steamboats, and no airships. Messages could be sent only by human messengers, who either walked or traveled by horse.

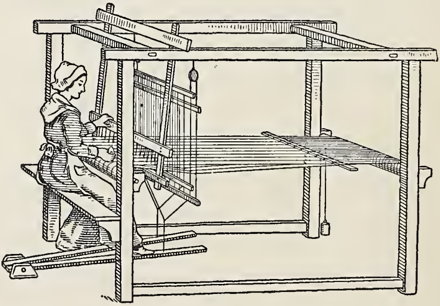

FIG. 32. A hand loom in use before the Industrial Revolution. Hand and foot power alone ran this loom

Thus, although the old England of manors and slavery had largely disappeared and crafts had developed, England was far from being an industrial country.

Then, almost overnight it seemed, — so rapidly did one change follow another, — the England of handicrafts quickly disappeared. The Great Britain of mechanical power, of manufacturing, of coal, iron, and steel, of world trade and world empire, took its place. From being a small, almost self-sufficient country of a little over 6,000,000 farmers and craftsmen in 1700, Great Britain became a country of more than 46,000,000 machine-workers, mechanics, clerks, and business men, controlling a world empire of about 500,000,000 human beings.

The Invention of the First Textile Machines and of the First Engines

You will recall from your earlier studies how the Industrial Revolution began with the invention of the first textile machines and the first workable engines. In brief the story is that of the change from the spinning wheel and hand loom to the spinning jenny or spinning frame and the power loom. The chief steps may be quickly reviewed.

First, the improvements in spinning, beginning with Hargreaves's invention of the spinning jenny (1764). By means of these, thirty, eighty, and finally hundreds of threads could be spun on a single machine instead of one thread, as on the old spinning wheel.

Second, the improvements in weaving. These were, first, the invention of the flying shuttle (1733), by which the shuttle was jerked more quickly and accurately back and forth through the loom than it could be thrown through by the weaver. Then came more and more improvements in the machines, each of which made it possible to weave larger and larger amounts of cloth.

Third, the improvement of the steam engine. Until after 1760 machine manufacturing was held back because of the *lack of mechanical power*. The spinning and weaving machines were still run by the hands and feet of the workers. In 1768, you remember, Arkwright invented a way of running spinning jennies by the power of crude water wheels, and in 1785 Cartwright did the

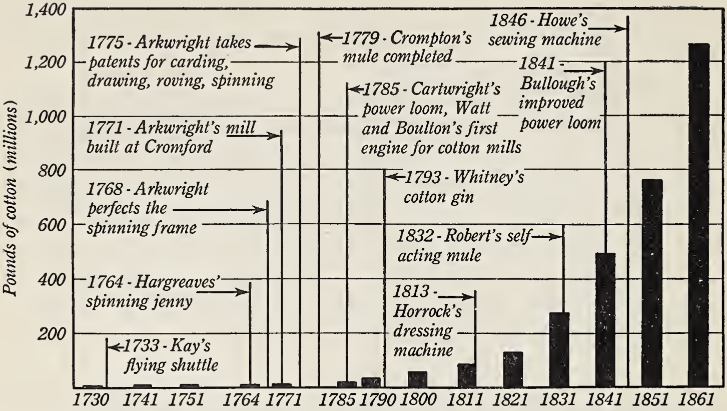

FIG. 33. This combined graph and time line shows clearly that as quicker means of making cotton cloth were invented the textile industry grew. Notice how the bars, which show the amount of raw cotton imported into Great Britain, grow higher as invention after invention appeared

same thing for looms. Water power was somewhat better than hand and foot power, of course. More yarn could be spun and more cloth could be woven. So some improvement had been made. In the meantime, however, men were trying to make a successful steam engine. If such an engine could be made, England could manufacture goods for the entire world, thought far-seeing English business men.

But in their experiments the engine-inventors had met many disappointments. You probably remember the outline of the long, long story of the invention of the steam engine. First, the fact that when steam expanded it had great power had been known for hundreds of years. Second, no one could discover how to make really workable steam engines before 1600. Third, in 1679 Denis Papin thought of enclosing steam in a tube, or cylinder, and of using the force of the steam as it expanded to push a piston. Fourth, other inventors, especially Thomas Newcomen (1705), improved on the piston idea. Fifth, by 1750 crude engines were being used to pump water from the iron mines and coal mines of England.

But, as you know, in all that time the engines worked poorly and were not used at all in the textile shops. Then, in 1782, James

Watt, a Glasgow instrument-maker, succeeded in greatly improving the Newcomen engine which had been sent him for repair.

At last men had a steam engine that would turn wheels and drive machines. No longer would spinners and weavers have to run their machines by their arms and hands and feet. Steam power would do it for them while they tended the machines. At last men had mechanical power with which to propel road vehicles and boats. Now they could use their brains more and their muscles less. They could plan, design, guide, and decide important things and let the engines do the pulling.

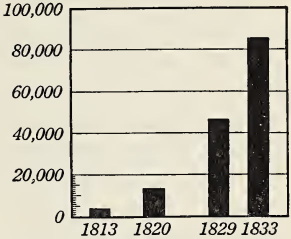

Fig. 34. Increase in the number of looms driven by steam power, 1813–1833. Compare this graph with figure 33

So during the very years that some Europeans were inventing machines to spin and weave and do other kinds of work, others were inventing engines to drive these machines.

Thus did the Industrial Revolution begin in the 1700's.

At first the improvements in the new machines and engines came slowly. The clothiers were slow to see the advantages of the expensive machines and to risk their fortunes on them. Not until well after 1800 were many factories built for the new power-driven spinning and weaving machines. But then, as figure 34 shows, more and more owners put engines and looms in their factories. By the middle of the century few hand looms were in use. Steam power had come.

Fortunately Great Britain Had Great Deposits of Coal

The new steam engines required coal for fuel, and Great Britain had plenty of it in her coal mines. Even in Roman times coal had been mined in Great Britain. It was well known there in the Middle Ages, and well-to-do people sometimes burned it in their stoves. An old record that has come down to us from 1056 speaks of the coals of Newcastle. In 1200 many people about Newcastle were using coal, and it was even being shipped by boat to London. Steadily the coal trade grew. In the year 1725 London burned more than 1,000,000 tons. A visitor to the city at that time spoke of seeing one fleet of 500 coal boats coming up the river Thames.

Formerly the heating of houses and the smelting of iron had been done by burning wood and charcoal. Indeed, even as early as 1500, so much timber was being cut down to make charcoal for the iron-smelters that the English government, called Parliament, became alarmed for England's forests. You can imagine how the forests began to disappear; for to smelt one ton of iron ore required two loads of charcoal. To make one load of charcoal, two loads of wood were cut. So Parliament passed laws which stated that only a certain number of trees could be cut. They feared that soon the English merchants would lack timber for their ships.

Immediately the ironmasters began to worry about their trade, for without wood they thought they could not carry on business.

Dud Dudley, the son of an ironmaster, saved the situation and helped to bring about the wider use of coal. His father's iron foundry was built above a coal field. Young Dudley tried to find a way of smelting iron ore by using coal instead of charcoal. He found, however, that the coal contained sulphur and other impurities which combined with the iron and spoiled it. But he did not give up. Finally he succeeded in inventing a way of burning coal so that the impurities were removed. What was left was a gray-black "hard rock" called coke. The fires made with coke were hotter than any charcoal fires Dud had ever made before! His iron was better than the iron made in any other place!

In 1620 the English government gave him a "patent" on his invention. This meant that during the following fourteen years he, and he alone, had the right to use this coke-burning method. Immediately the charcoal ironmasters and business men rose up to oppose the Dudleys. "Our business will be ruined!" they cried. Then they went into action. They drove young Dudley from his home. He built an iron foundry first in one place and then in another. In each place enemies rose up against him. Finally he succeeded in producing more iron with the use of coal than the other ironmasters could by using charcoal. Nevertheless, riots were organized against him, his machines were destroyed, and at last he was forced to give up his work.

In the 1700's, however, a charcoal famine, due to the small amount of timber which could be obtained, occurred in some parts of Great Britain and led to the wider use of coal. There was nothing else to use for fuel except coal; so the charcoal ironmasters were forced to give in. At last coal became the chief fuel of the new age of engines.

By 1800 the Industrial Revolution was really started. Machines and engines to run them were coming into use in Great Britain. Great mines of coal were being opened up.

THE INDUSTRIAL REVOLUTION CHANGED THE ENGLAND OF CRAFTS AND VILLAGES INTO THE GREAT BRITAIN OF MANUFACTURING CITIES AND TOWNS

1. Work was no longer done by hand at home but by machine in the factory

The new spinning and weaving machines were large. They were also complicated and expensive. The poor weaver in the south or west of England, who had barely been able to make his living before, did not have the money to buy a high-priced new power loom and put it up in his house in place of the old simple hand loom.

Who, then, bought the new machines? The men who had made money in one way or another — perhaps in trade, perhaps through owning land or flocks of sheep. Sometimes it was the clothier. These men thought that if they could make money by owning one machine and hiring someone to run it, they could make more money by buying many machines and hiring many people to run them.

This they did. The machines were then set up in buildings, and people were hired to work on them. Thus *factories* grew up. A poem published about 1600 says that

> Within one room being large and long
> There stood two hundred looms full strong.

In one "factory" 150 children were picking wool, 100 women were carding, 200 girls were spinning; there were 50 shearers, 80 rovers, 40 dyers, and 20 hands in the fulling mill.

The hand spinners and weavers could not do nearly so much work on their old hand machines as the hired laborers of the factory-owner could do on the new machines. As a result the hand craftsmen could not sell the goods they made so cheaply as the factory-owner could sell his. Gradually people stopped buying the handmade goods and bought the cheaper factory-made goods. Then the craftsmen who worked in their homes became poorer than ever. They hated the machines, the factory, and the factory-owner. In many places their poverty led them to smash the new machines.

2. The men who formerly had worked for themselves at home now worked in factories for wages

Factory-owners, with their machines, their factories, and their money, were more powerful than the hand workers; so the men who worked in their homes for themselves were forced to go to work for someone else. They went into the factories to work long hours at a daily wage. Life there was far from pleasant. They had to work under the watchful eye of a foreman. They had to go to work when he told them to, to stop for lunch only when he permitted them to, to go back at his command, and to work again until he allowed them to leave. How different this was from life in their homes where they had been free to begin work when they pleased and to work only so long as they wished! Now they had to work at a certain speed or lose their jobs.

The working hours were very long. Workers had to be at the machines at six o'clock in the morning and did not leave until seven or eight in the evening. Think of it! — twelve to fifteen hours of labor each day! People often dropped off to sleep over their machines.

Even children worked the same long hours every day from the time they were five or six years old. They worked in mines as well as in mills and factories. We can hardly believe the stories that describe their lives. Some were kept awake and working by a whip. They were dreadfully tired. They were hungry. Many of them were ill from overwork and unhealthful living, and many of them died from it. At first there were no laws forbidding factory-owners to employ them, and their parents needed money too much to prevent it.

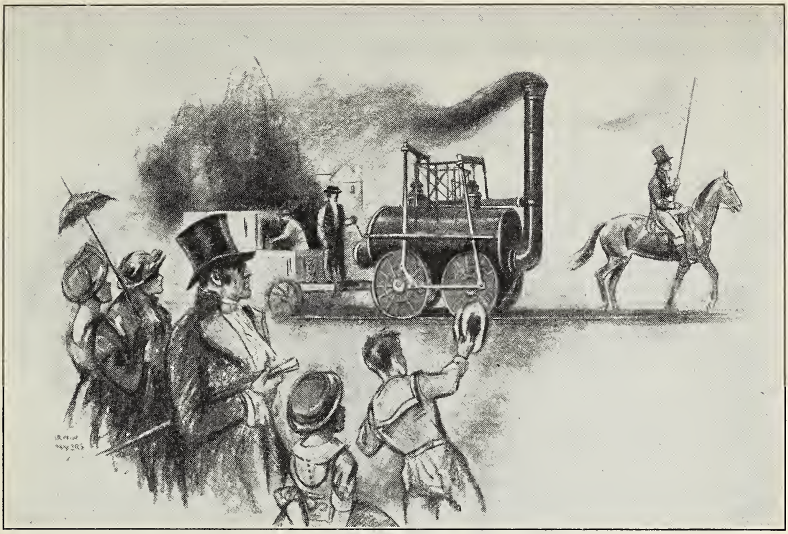

Fig. 35. A scene along the Stockton & Darlington Railway in 1825. The law required that a man on horseback ride in front of the engine to clear the track. This was not difficult, for the greatest speed of these trains was only about twelve or fourteen miles an hour. (Courtesy of the Central Alloy Steel Corporation)

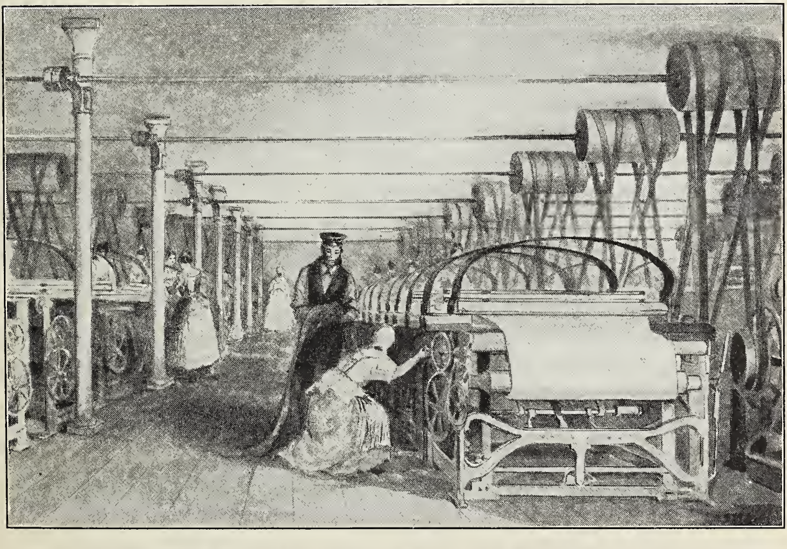

Fig. 36. An early English factory. Steam power ran the looms in this textile mill. The woman at the right is oiling her loom. Her work is to start and stop her machine at the proper time and to see that it is kept in good running condition. Compare her work with that of the woman shown in figure 32

3. How the Industrial Revolution affected the number of people in Great Britain

There was one unexpected result of the Industrial Revolution. Look at the bar graph below. It shows an astonishing fact. The population of Great Britain had actually increased from 10,500,000 in 1801 to about 46,000,000 in 1937. Why did this happen?

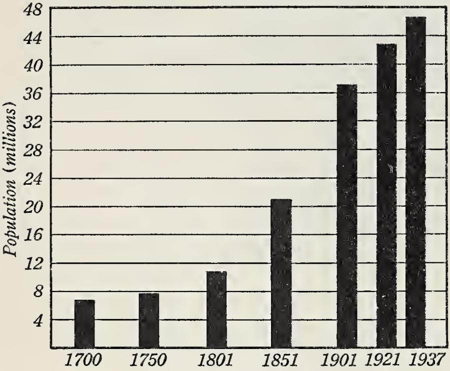

FIG. 37. Growth in the population of Great Britain, 1700–1937

There are several reasons, but two are of greater importance than the others: (1) the increase in scientific knowledge; (2) the improvement in the standard of living of the people.

After the first years of changed living, conditions began to improve. Scientists in Europe and America were finding out more about diseases, their causes, and how to cure them. They found that they could prevent some diseases, such as typhoid fever, by keeping city streets and houses clean and by making them more sanitary. They learned how to vaccinate people in order to prevent smallpox. For many, many years thousands of people had died from this dangerous disease. Now deaths from smallpox could be prevented. Fewer people died from disease in the cities.

Factory conditions were improving too. The number of working hours was being shortened by law, and fewer children were permitted to work. As trade increased and more and more workers were needed, higher wages were paid. More people came from the country districts to swell the population of cities.

People in the country districts benefited too. There were fewer mouths to feed as sons and daughters went into the cities. It was easier for those left behind to find work in the country.

4. Raw materials and manufactured goods were produced on a larger scale than ever before

With machines replacing hand labor everywhere and with a large number of people working long hours every day, the amount of goods produced in mines, mills, and factories increased enormously. In 1813, for example, there were about 2400 power looms in the British Isles, but by 1833 the number had increased to about 85,000 (figure 34). Spinning machines multiplied at the same rate. England's great textile industries — cotton, silk, and wool — were growing rapidly.

Number of Pounds of Cotton and Raw Silk Imported into Great Britain

Year	Cotton	Silk
1801 . . .	54,000,000	960,000
1845 . . .	722,000,000	6,300,000

After 1801 the amount of cotton imported increased so rapidly that by 1845 it was nearly fourteen times as large as it had been in 1801. Between 1801 and 1845 the amount of raw silk shipped to Great Britain increased nearly seven times. (This is shown in the table at the top of the page.) The amount of wool imported into Great Britain increased ten times in the same period.

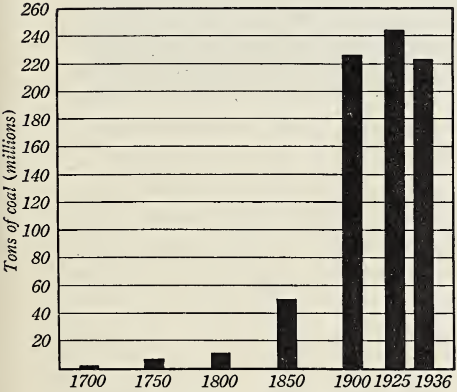

FIG. 38. Production of coal in Great Britain, 1700–1936

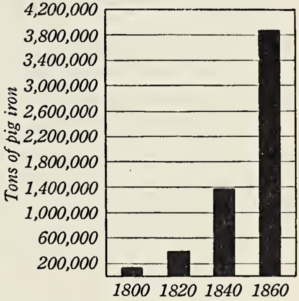

FIG. 39. Production of pig iron in Great Britain, 1800–1860

What about the mining of coal? From 1700 to 1800 the amount of coal mined was small. By 1850, however, machines were in widespread use and most of them were run by steam engines. This increase in the number of engines caused a great increase in the production of coal, so that 49,000,000 tons of coal were mined in 1850. Look at the bar graph of figure 38 and note the production at other times.

The same kind of story of growth is told in the graph of pig-iron production, figure 39. Today Great Britain produces more than 7,000,000 tons annually.

5. After 1800 the people of Great Britain crowded into cities in the industrial regions

The number of people increased enormously after the beginning of the Industrial Revolution. But population changed in another way also. It became massed in places where workers were needed. As a result towns grew into small cities, and small cities grew into larger ones.

Manchester, for example, was a small town in 1700. Today it is the center of one of the most remarkable industrial regions on earth. Within 50 miles of the center of the city 9,000,000 people are living. Except in New York City, there is no such congestion of humanity elsewhere in the world. Nowhere else in the world are there so many factories, so many miles of railroad, such throbbing industry, and such huge amounts of engine power.

Liverpool, Birmingham, Leeds, and other cities grew in much the same way as Manchester (see the table below). We should not have to try very hard to think what natural resources might be near these large cities. Coal, of course, and iron.

Population of English Cities, 1801–1937

	1801	1841	1937
Manchester (and Salford)	95,000	311,000	758,000
Liverpool	82,000	286,000	854,000
Birmingham	71,000	183,000	1,013,000
Leeds	53,000	153,000	487,000

During the same time the number of people working on farms has actually grown smaller. Fifty years ago there were more than 2,000,000 people working on the land in Great Britain. Today there are only about 1,500,000, in spite of the fact that in the past 50 years the total population has much more than doubled. Can you imagine how much the English people depend upon other countries for their food?

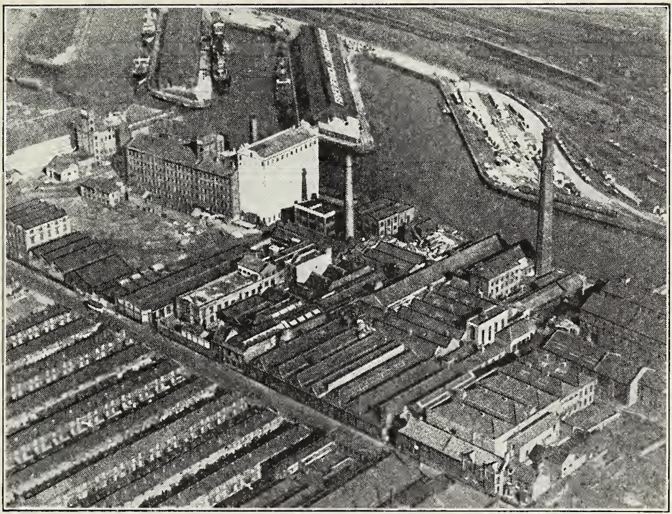

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FIG. 40. A small section of the city of Manchester today. Good transportation and nearness to coal have made it a prosperous manufacturing city

6. As her industries grew Great Britain built modern means of transportation

In the 1700's the roads were bad, there were few canals, and there were not enough rivers to transport goods. As for railways, they had not been dreamed of because there were no engines.

Roads and canals were improved

After 1750 roads were somewhat improved, and the use of wagons and carts increased. Wagons transporting wool and cloth traveled regularly to London. Farmers near London rented the wagons and teams to transport food to the city. On return trips these carried manufactured goods — groceries, coal, wine, and other supplies — for the shop-owners of the country villages.

Toward the end of the 1700's turnpike companies were building fine roads in England. Those wishing to travel on a turnpike road in wagons, carriages, carts, and the like had to pay a certain sum of money — a toll — to the company who built it. The new roads made traveling very much swifter and easier. Stage-coaches made regular stops at the principal towns, carrying mail, passengers, and supplies. Some of the coaches were very comfortable and handsome. They were well lined inside, and the cushioned seats saved the occupants from being too badly jolted.

The sound of the horn as the coach dashed into a village was the signal for frenzied activity. Travelers hurried to gather their luggage and take their places for the journey. The townspeople eagerly received the packages and messages delivered by the driver. The coach, you see, was the news-carrier. Its coming was the topic of long conversations in the blacksmith's shop. The news it brought gave the people glimpses of the outside world.

Do you remember that in studying the United States you learned that few canals, and no important ones, were built in our country until after 1800? This was not true of Great Britain nor, in fact, of most of Europe. Canals played an important part in the transportation of such heavy materials as coal and iron. As early as 1750 one of the first canal-builders, the duke of Bridgewater, constructed a canal which was intended to carry coal from the mines to the city.

So it was that a great transportation system of roads and canals grew up in less than 100 years. But even improved roads and many canals did not satisfy Great Britain's needs for rapid transportation.

The new railroads

Even in the early 1700's there were short railroads in England. These were mainly in the coal regions. They did not use steam-drawn trains, but little cars running on wooden or stone rails, drawn by horses or even by men and women. In this way coal was hauled from the mine to the town, or to boats on the river or canal. This kind of railroad was used for 100 years, but only with horse or human power.

Then came George Stephenson's invention of the steam locomotive. Before 1825 there was a railway for horse-drawn cars from Stockton to Darlington. This road was about 25 miles long. Stephenson made many experiments in trying to make a steam engine that would pull a train of cars. At last he persuaded the director of the horse-drawn line to install six of his model locomotives on the line. These little locomotives ran at a speed of from twelve to fourteen miles an hour (see figure 35). They hauled only freight, and but a small amount of that. Horses still dragged the passenger cars and most of the freight cars.

Improvement came rapidly, however. In October, 1829, Stephenson had a new type of engine, called the *Rocket*. This could draw a load of twelve and a half tons at 29 miles an hour.

In 1829, the year of the *Rocket*, the Liverpool & Manchester Railway was opened. This line made six trips a day regularly. Later, lines were built from London to Birmingham and to Southampton. In 1836 Parliament allowed the building of 29 new railroads with 1000 miles of track altogether. In 1842 even the queen consented to risk a ride on a train.

Today Great Britain has 20,000 miles of railroad track. The United States has 240,000 miles of track. With 25 times the territory of Great Britain, the United States has only about 12 times as much railroad.

Thus England Changed from the England of Manors to Modern Industrial Great Britain

Within 25 years after the invention of the first successful steam engine and the first spinning and weaving machines, inventors had learned how to propel road vehicles and steamboats, as well as how to operate machines. Within a century the whole English way of life was changed. Craftsmen put aside their hand tools and their home crafts and became tenders of machines and wage-earners in factories.

The whole face of the country was changed. Coal-mining cities sprang up near the huge deposits of coal. Iron and steel mills developed. Scores of textile factories were built.

The new times demanded safer and swifter transportation. Roads were improved, canals were dug, and the communities of the British Isles were tied together by steam railroads.

Population increased rapidly once the Industrial Revolution was well under way. In the 100 years after 1800 the inhabitants of the British Isles increased in number, but the number of English people engaged in farming steadily decreased. Today four out of every five of the British people live in towns and cities.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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CHAPTER IV

HOW GREAT BRITAIN BECAME THE PIVOT OF WORLD TRADE

For Centuries the British Isles, on the Edge of the Known World, Had Been Isolated

On the map following page 336 you can see that Great Britain was far from the Mediterranean Sea, the center of the known world before America was discovered. Such cities as Venice, Alexandria, Bagdad, and Mosul were the great trading cities then. Hundreds, even thousands, of ships sailed the Mediterranean, and many camel caravans loaded with precious goods made their way back and forth between eastern Europe and western Asia.

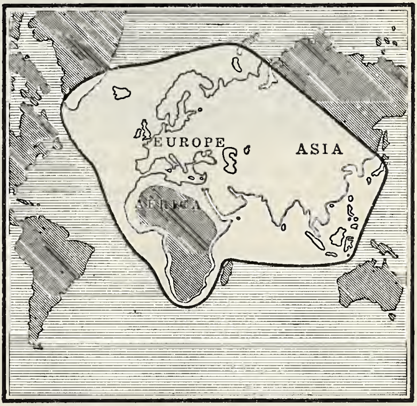

Fig. 41. The line which encloses Europe and parts of Asia and Africa indicates the lands which were known to a few scholars as the "world" in the Middle Ages. The darkened area within the line had not yet been explored

Britain really had little to offer traders, and she was not at that time well located for trade. The Romans and the other ancients had considered Britain the "jumping-off place" of the world. Because she had so little to do with other civilizations she had been regarded as the barbarian "backwoods" country of Europe.

Even later traders were not especially eager to sail up the Atlantic coast to call at little British seaport towns. They preferred to visit near-by Mediterranean cities. If a trader of Genoa wanted to do a little buying and selling, he needed only

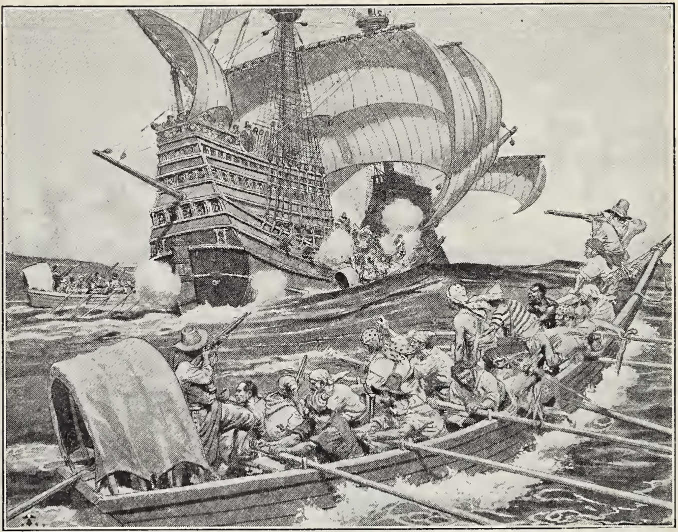

Fig. 42. Trading during the Middle Ages held many dangers. One of the greatest was the frequent attacks by pirates

a few days to make the trip to Marseille or to the nearer cities of Florence and Venice. He often went to Alexandria, on the northern coast of Africa, where he exchanged his goods for those of traders from India, China, Persia, and Mesopotamia. If he did not wish to leave home at all, much trade came to him; for Italy was the center of the business world.

An English merchant was not so fortunate, however. Of course, ships from Genoa, Venice, or the important city of Bruges did occasionally call at British ports. The region now called Belgium, and especially the city of Bruges, was becoming a world trading center in the 1300's and 1400's. The cloth merchants of Bruges bought English wool and sometimes exchanged Italian goods for it. For the most part, however, English traders had to leave home to sell their goods, and to take long, dangerous voyages. On the seas pirate ships often attacked them, took their cargoes, and sank their ships. Even when their ships reached the desired ports, the Englishmen often found foreign traders only mildly interested in their goods.

The Great Age of Discovery Enlarged the Known World and Put the British Isles at the Very Center of World Trade

Then in 1493 came almost unbelievable news. Christopher Columbus, a daring Italian navigator, had explored the unknown seas the year before and found a new land *west* of England, a land later called America. Others followed him; and soon the known world was enlarged to include two new continents across the Atlantic Ocean — North America and South America.

English explorers also sailed westward to see this new land. One was John Cabot, a Venetian explorer in the service of the English king. He discovered Newfoundland in 1497, for which the king gave him ten pounds ($50).

With the new discoveries trade in every country became more active. Spain and Portugal, already great trading nations, sent out explorers and conquerors to bring back gold and other riches. These countries rapidly became very wealthy. Then, in 1498, Vasco da Gama, an adventurous Portuguese sailor, by sailing south around Africa, found that traders could carry their goods to and from the East Indies, China, and India entirely by water.

From sailor to sailor, from town to town, and from country to country the great news flew. England was eager to increase her trade with Asia. With the discovery of the new waterway, she could now take an active part in the scramble for trade. English sailors joined the crews of Portuguese vessels in order to learn the secrets of the route around the south of Africa. English merchants began to trade with such distant places as Turkey, Russia, Guinea, and the north coast of Africa. England also did her best to capture her share of the trade in the newly discovered lands to the west.

British Ports Became Busy Trade Centers in the 1500's

In every European country where trading was carried on, boatbuilding and seafaring became the great activities of the day. Naval yards and storehouses for goods were built. Harbors were dredged. Docks were constructed.

In England the same things happened. British boys in their teens took to the sea. British merchants gladly risked their lives and fortunes to build up trade with the far corners of the earth. Bold English commanders, called the "Elizabethan sea dogs,"— Drake, Raleigh, Hawkins, and Gilbert, — made the sea none too safe for rival ships. Many a fine fortune they seized from the Spanish fleets until foreign sailors trembled at the sight of a British flag. For years they robbed Spanish ships, and carried home many rich cargoes. They engaged in slave-trading — buying black men in Africa and selling them to Spanish colonists in the West Indies or to wealthy men in Spain.

They were so daring and did so much damage to Spanish shipping that in the end, because of this and for other reasons, Spain declared war on England. But the English won. In 1588 the magnificent Spanish fleet, the Armada, which had been fitted out to crush the growing English sea power, was destroyed. One of England's most powerful rivals was checked on the sea. With added ambition the minds of Englishmen centered upon world trade.

More and more the little island found her trade with the outside world growing. Her position in the world had changed. She was as near to the new trading land of America as any other European country except Spain and Portugal. She had many good harbors and fine ships. Her people had become expert navigators, and they too knew the value of trade and were willing to take great risks for the profit that might be gained.

BRITISH MERCHANTS FORMED TRADING COMPANIES

An example: The East India Company

It was almost impossible for one merchant alone to raise the large amount of money necessary to build and prepare a boat for a two-year journey. Furthermore, a boat traveling alone was too much at the mercy of attacking pirates or rival ships from other countries.

Merchants solved that problem by forming companies which built fleets of ships, paid sailors to sail them, and put on board food and other things necessary for long trips. These groups were called trading companies.

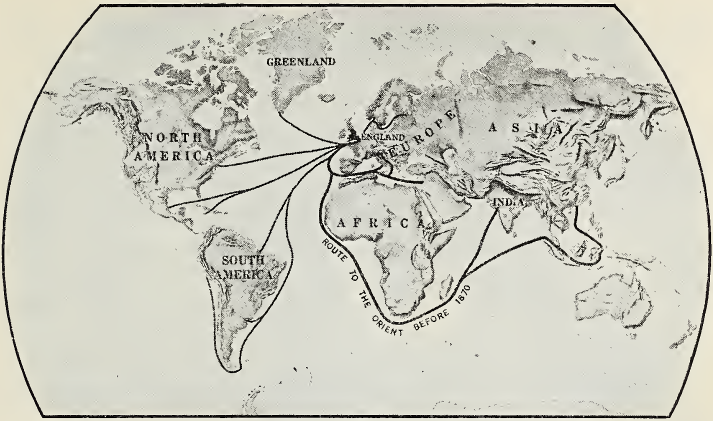

FIG. 43. England's paths of trade in 1700

The East India Company was the best-known trading company. It was formed in 1600 by a group of English merchants who asked Queen Elizabeth for a charter giving them full control of trade between England and India. The queen granted the charter. On its first trading journey, in 1601, four ships set out. Two and a half years later the ships came back laden with pepper. Great profit was made.

More money was raised for another trip, and in 1604 the same four ships were sent out again. One was destroyed; but three returned, carrying rich cargoes of pepper, cloves, mace, and nutmeg. Great was the excitement among the members of the Company.

As years passed the fortunes of the Company went up and down. Some years it made money; other years it lost. When the ships succeeded in getting back to England, the cargoes were in great demand. But how queer a list of the goods in these cargoes sounds to our modern ears! There were no supplies of iron, coal, meal, wheat, oil, and the like, such as fill our ocean steamships today. Instead, such unusual items as these were brought back: 3,000,000 pounds of pepper, 300,000 pounds of nutmeg, 1,500,000 pounds of saltpeter. Copper and tin were in demand, as were coffee, tea, green ginger, bamboo canes, Bengal silk, cotton yarn, and painted handkerchiefs. And when an East India ship returned safely to England, there were always buyers eager to own such luxuries. Gradually, however, navigation became safer. More and more ships succeeded in getting back to England with cargoes. The Company began to make money steadily.

Growth of English Trade, 1614–1750	
1614	$21,000,000
1701	62,000,000
1750	100,000,000

Other companies were formed in the 1700's. Some built whaling ships and sent them to the waters around Greenland. The whaling industry was as uncertain as the trade with the Far East. Some years the companies were successful; other years they failed completely. But in spite of the failures of the companies English merchants continued to invest their money in them. Ships continued to sail the seas to the far corners of the globe, and England's trade grew, as the table above shows.

We see, then, that England was no longer merely on the rim of the civilized world. She had become the pivot of world trade. Her convenient location, her good harbors, and her adventurous people all helped to bring about this great change.

Of course this foreign trade helped the industries of Great Britain to grow. If English merchants were to get timber and spices and cotton from far lands, they must have manufactured goods to exchange for these things. So the craftsmen of Great Britain turned out more and more products.

A GREAT BRITISH MERCHANT MARINE WAS BUILT

Since Great Britain imported and exported so many goods, English business men decided that they could save money by transporting their own manufactured goods. Many of them, therefore, built their own ships. The trading companies had been doing this from the very beginning.

But what kind of ships were built? The early ones owned by the East India Company were strong and sound, well able to stand up against wind and rough weather, and well armed to beat off pirates. But they were blunt and square, and so traveled very slowly. A voyage from England to India and back took two years or more. All through the 1600's and 1700's such slow, safe vessels as these were used.

Then, after 1800, Appeared the American "Tea Clippers"

In early years tea was regarded as a great luxury. In 1664, for example, when the East India Company wanted to make a valuable present to the king, a little two-pound package of tea was the gift that they chose!

During the 1700's English people began to like tea, and by 1800 they were clamoring to get it from the Far East. But it took a whole year for the slow freight ships to sail from China to England with a tea cargo, and during that time much of the flavor of the tea was lost. For that reason many merchants hesitated to engage in the tea trade.

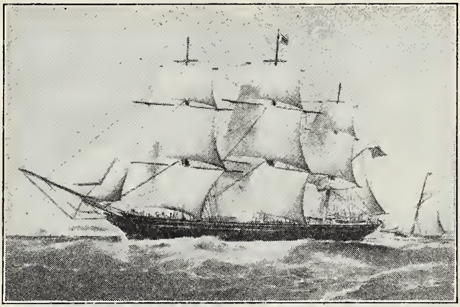

Fig. 44. Clipper ships, originally built in the United States, were soon copied by the English people, who saw the speed which their sharp bows and many sails enabled these ships to attain

By 1850 a new type of sailing ship which was being built in the United States was taking the Eastern trade away from English vessels. These trim, slim vessels that flew over the water with an acre of white canvas winging them onward were called "tea clippers." England had to copy these if she was to keep her trade with the Orient. So copy them she did.

How rapid and dependable these boats were we can judge from the records they made. For example, in 1866 five tea clippers left Foochow, China, on the same day. They arrived at the mouth of the Thames, in England, within a few hours of each other only 120 days later! England's clipper fleet had solved the problem of more rapid sailing.

Clipper ships were the wonder of their day. They required great skill in handling, and captains who sailed them told with pride of races they had with rival ships.

THEN CAME STEAMSHIPS MADE OF STEEL

But sailing vessels — even clippers — depended on wind and weather, and record trips needed the most fortunate conditions.

In the early 1800's vessels were being propelled by steam engines on the rivers of England and America. Why not ocean steamships running on regular swift schedules, propelled by "bought wind," as the sailors called the steam? "Why not, indeed?" thought the more progressive shipbuilders, and they began building such vessels for both passengers and trade.

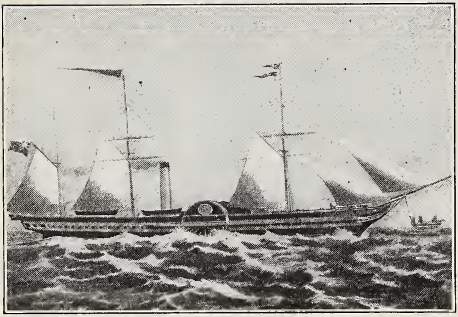

FIG. 45. This steamship was built in 1840 for British trade. There was not yet enough confidence in steam power to build the new ships without sails, which could carry them to their ports should the engines break down

In 1838 an English vessel, the *Great Western*, crossed the Atlantic to New York under the power of steam alone. On its return trip to England it carried 68 cabin passengers and 20,000 letters. It made the journey in fifteen days.

So steam engines slowly took the place of sails, and ships made of iron and steel replaced the old wooden boats and even the trim clippers. This helped Great Britain to keep her position as mistress of the seas — a position which the American fleet of clippers had been challenging. Great Britain, as you remember from your earlier studies, had led the United States in the production of iron and steel, and so could produce iron and steel boats more cheaply than could the United States.

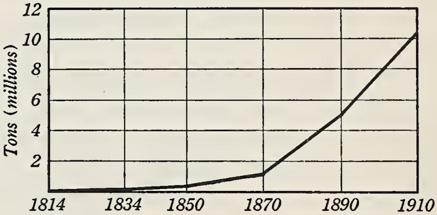

FIG. 46. Growth in total tonnage of British steam vessels, 1814–1910

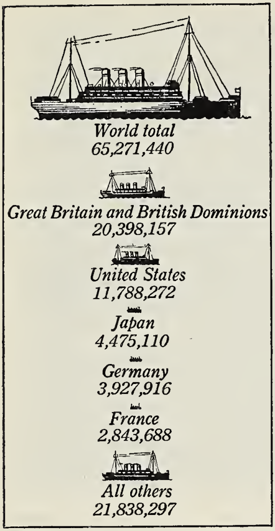

FIG. 47. This graph shows the total tonnage of steamers and motor ships of the world, also the tonnage for several different countries. The figures are for 1937. Note the comparison between the tonnage of British vessels and that of the United States, Japan, France, and Germany

So, as factories multiplied in the 1800's, as more coal was mined, and as more steel was made and more railroads constructed, there was a demand for ships and more ships — to carry the products of mine and factory away from England; to transport food and raw material to England's factories. Great Britain's merchant marine grew and grew, and her position as mistress of the seas remained unquestioned.

After 1850 her fleets of steamships increased in size and power (see figure 46). Long before the World War their tonnage amounted to about one third of that of the entire world. This is still true (see figure 47).

Great Britain was not increasing her merchant marine without reason. Her trade was being carried on with a constantly increasing number of ports. Many ships were needed if all the ports were to be reached without too much delay.

AS THE INDUSTRIAL REVOLUTION WENT ON, GREAT BRITAIN SOLD LARGER AMOUNTS OF GOODS TO OTHER COUNTRIES

Great Britain's manufacture of cotton goods and her trade in them grew by leaps and bounds. Other manufactured goods also were made and sold in large amounts to foreign countries. Until 1900 Great Britain produced more steel rails, machines, tools, implements, and other goods made from iron and steel than any other country in the world. Great Britain, indeed,

VALUE OF COTTON GOODS EXPORTED FROM GREAT BRITAIN

	Annual Average
1829–1831	$87,854,220
1859–1861	238,140,000
1889–1891	350,474,040
1911–1913	598,591,620
1920–1921	1,410,372,000

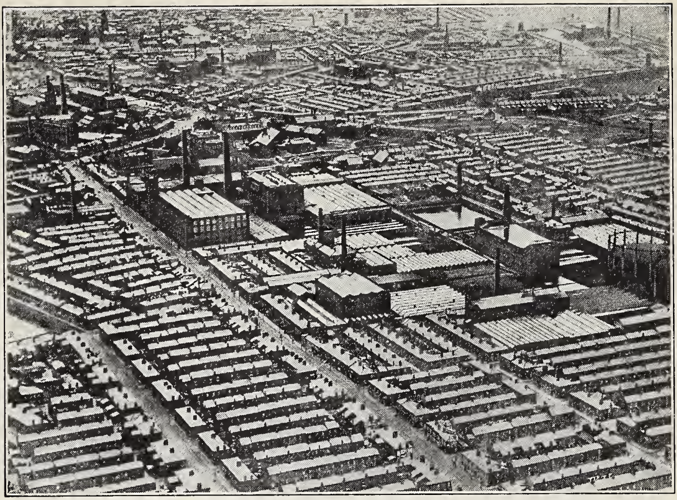

FIG. 48. Not only does Manchester (see figure 40) produce great amounts of cotton goods, but Preston, shown in this picture, is also an important cotton-manufacturing center. Many hundreds of mill workers' homes lie centered about the factories whose tall chimneys you see in the picture

became a huge factory turning raw materials into finished products. The English people sold these products to the people of other countries. With the money paid for these they bought the food, raw materials, and other things needed in everyday life.

GREAT BRITAIN ALSO HAD GREAT STORES OF COAL TO SELL TO OTHER PEOPLES

In 1870 British mines produced as much coal as those of all other countries together, including the United States. Until 1900 Great Britain was the greatest coal-miner of the world. Shortly after that time, however, the United States took the lead. Nevertheless, year by year Great Britain has continued to mine great amounts of coal.

Did she use it all herself? No, her coal-owners sold much of it to business men in other countries. They used the profits to pay for part of the huge quantities of food, cotton, iron, rubber, timber, wool, and other things which were imported.

Without coal it would have been almost impossible for England to become a great manufacturing country. Without coal it is doubtful if her population would have grown so large and if so many of her people would have left the farms to work in the factories of her cities.

Great Britain's vast coal supply helped her shipping industry also. Most of Great Britain's exports were light, compact manufactured products; so heavy, bulky coal could be included in a cargo. Her imports were heavy, bulky raw materials. These balanced very well, and ships thus carried full cargoes both to and from the ports.

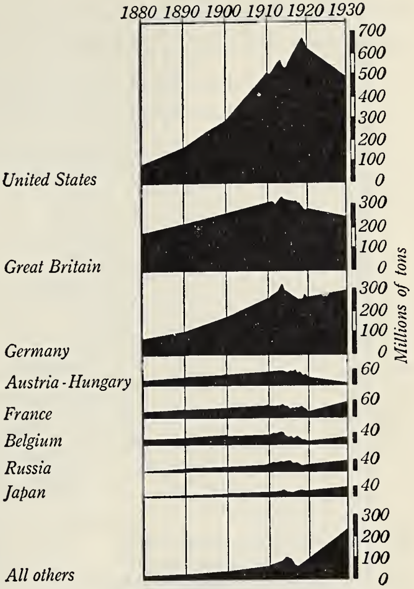

FIG. 49. This graph shows the amounts of coal produced by the leading industrial nations from 1880 to 1930. The height of the blackened area under any given year shows the amount produced. Note that the United States, Great Britain, and Germany increased the amount of their coal production very rapidly. The other countries have increased the mining of coal very slowly

AN IMPORTANT RESULT OF THE INDUSTRIAL REVOLUTION: GREAT BRITAIN CAME TO DEPEND ON THE OUTSIDE WORLD FOR FOOD

The population of Great Britain grew from 10,500,000 in 1801 to more than 37,000,000 in 1901. During the same time people left the farms to go to the cities to work. Less and less food was grown on the farms. The wheat crop shows a startling decrease — startling because the English people eat much bread made from wheat. In 1870 almost 4,000,000 acres of land were planted in wheat. The number of acres of wheat fields 40 years later was less than 2,000,000. Barley, oats, potatoes, and other principal foods showed the same kind of decrease. And during the same time that food crops had *decreased* more than 50 per cent, the population had *increased* more than 50 per cent!

> In 1865 the British Isles imported 135 pounds of wheat per inhabitant.
> In 1905 the British Isles imported 261 pounds of wheat per inhabitant.

By 1914, when the World War broke out, so many people had left their farms that *only 6 per cent of the English workers were farming the land.* From these facts we can see clearly that hundreds of hungry city workers could not be fed by English farmers. *Food as well as other raw products had to be brought into Great Britain from other parts of the world.*

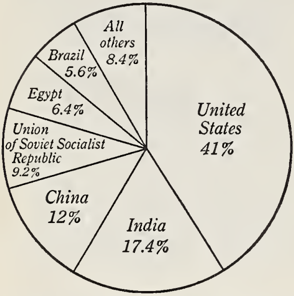

Fig. 50. This circle graph represents the world's cotton production. It shows the countries which produce the greatest amounts of raw cotton. Six countries produce nine tenths of the total

Three fourths of the wheat used by the British comes from the United States, Canada, far-off Australia, and Argentina.

For other foods also the British Isles depend on foreign lands. Even before the World War 40 per cent of the meat was imported from abroad. Year by year larger amounts of eggs and other dairy products were also brought in from other countries.

Thus, in giving up most of its agriculture and becoming a manufacturing nation, Great Britain has become dependent upon the outside world for a great deal of its food.

Great Britain Depended on the Outside World for Many Raw Materials Also: Cotton, Iron Ore, Rubber, etc.

1. A cotton-manufacturing country must have supplies of raw cotton. Does Great Britain raise cotton?

The circle of the graph, figure 50, shows that the United States, India, and China are the three largest producers of raw cotton. From these three places Great Britain imports most of her supply. Upon these distant countries the British cotton-workers depend today, just as 100 years ago they depended on distant countries, for their very existence.

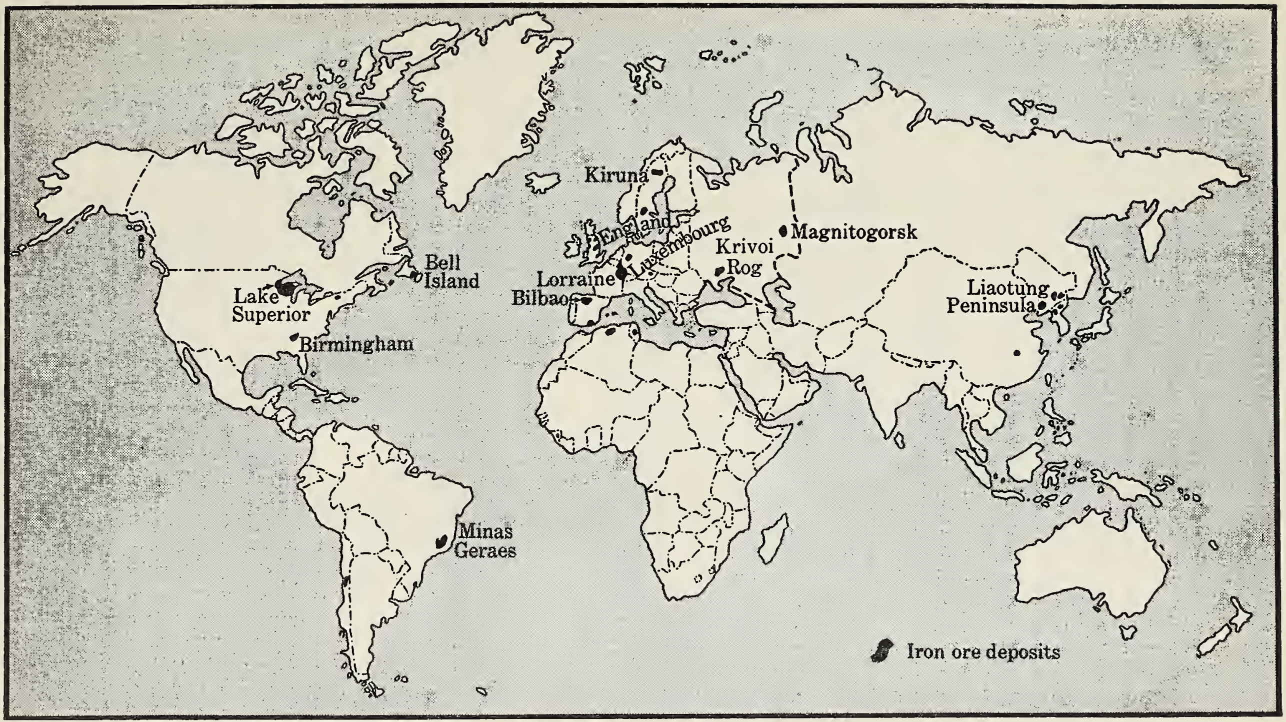
Kiruna
England
Luxembourg
Magnitogorsk
Krivoi Rog
Lorraine
Bilbao
Bell Island
Lake Superior
Birmingham
Liaotung Peninsula
Minas Geraes
Iron ore deposits

FIG. 51. The iron resources of the world

2. An industrial country needs large supplies of iron. Has Great Britain enough iron to supply her needs?

As an industrial country Great Britain needs great quantities of iron. Her supplies are small, as you can see from figure 51. Much of the iron ore which she turns into pig iron she gets from Spain and Sweden. In addition she depends upon regions on every continent for materials needed in industrial life.

3. Has Great Britain the materials with which steel is made?

You have already learned that steel is an alloy; that is, a mixture of iron and other elements — always carbon, and sometimes such metals as manganese, chromium, tin, and nickel. Great Britain, like the United States, does not possess large enough supplies of these important ores; so she is compelled to send her ships to every corner of the globe after them. Picture to yourself ships on all the oceans bringing to British ports nickel from Canada; chromium and iron ore from Spain, Asia Minor, and India; manganese from central Europe; tin from Australia and the Malay States; vanadium from South America.

4. Has Great Britain sufficient rubber?

A modern industrial world rides on rubber. In Great Britain there are many automobiles and motor trucks. Without rubber for tires and for other parts of the automobile such travel would be impossible. Rubber is also used in the air brakes of Great Britain's trains. Transportation and communication depend upon rubber. In fact, the very life of communities depends upon it.

Not a pound of rubber is raised in Great Britain. Most of the rubber that Great Britain uses is raised on English-owned plantations in far-off Ceylon or in the Malay States, Java, Borneo, and other islands in that tropical region. Three fifths of the world's rubber is produced there. Most of the rubber-producing land lies within the boundaries of the British Empire. (Compare the map of figure 53, showing the British Empire, with figure 245 in *Our Country and Our People.*)

5. What about oil?

Oil, we have already learned, is the second most important fuel used by industrial nations. In recent years Great Britain, like the United States, has been using great quantities of oil. Over 90 per cent of her naval vessels and a large percentage of her merchant ships are now propelled by oil-burning engines. On the streets of her cities and towns are many automobiles and motor trucks driven by gasoline engines. Many of her manufacturers are now burning oil to run the engines in their factories.

Great Britain is one of the world's great users of oil. Does she produce the oil she needs? Far from it. Small amounts of oil have been gathered from English wells and springs for hundreds of years. But there is not a single important oil-producing field in the British Isles. For oil Great Britain depends on the United States, Mexico, Russia, Persia, Netherland India, Venezuela, Rumania, and Iraq. These are the eight chief oil-producing regions of the world.

6. Great Britain depends on foreign countries for other things

Space is lacking to tell you of the many kinds of foods and other raw materials for which Great Britain depends upon the outside world. Her people, like the American people, are great tea and coffee drinkers. For tea they depend upon China, Japan, Ceylon, and other regions of the Far East. Their coffee comes from Brazil, Central America, Mexico, and the West Indies. Like other modern peoples, the English use large quantities of sugar. Four fifths of their sugar supply is brought from the West Indies and other distant countries, including many outside the Empire.

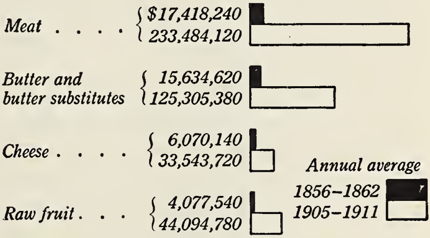

FIG. 52. Principal imports of food other than wheat. Compare the length of the bars for the years 1856–1862 with those for 1905–1911. These bars represent *annual* averages of imports. They make clear the fact that Great Britain grew dependent upon other parts of the world for her food supply

The American dinner table is sometimes described as a "League of Nations," because in the United States millions of families have for their meals foods imported from many other parts of the world. To the same degree this is true of the English people. They have become used to having various kinds of foods, many of which cannot be produced in Great Britain. For example, they like figs, dates, lemons, bananas, coconuts, cocoa, chocolates, almonds, peanuts, walnuts, olives, and a host of other things, all of which have to be shipped from distant lands.

In the same manner the English people have been getting a greater variety of comforts and luxuries. For example, new kinds of materials from other regions are used for their clothing. Household utensils have increased in number and in variety, many of them being made from materials brought from Asia, Africa, North America; indeed, from every continent.

We have studied four important factors which helped Great Britain to become the center of world trade

1. Great Britain was located in a favorable position to carry on sea trade with the modern world.
2. She was the first country to take up machine manufacturing on a large scale.
3. She built up a great shipping industry.
4. She had vast supplies of coal to supply power for her ships and factories and to sell to other countries.

So Great Britain became the hub of world trade. The whole matter is summed up clearly in the map on page 48.

Do you see how Great Britain stands out as the center of world trade? Note how bands of trade, like arms and fingers, reach out from England across the seas to distant lands. With these great arms and fingers she gathers up products from all parts of the world and sends out her own goods in exchange.

Note the heavy band of trade across the Atlantic between England and the United States. It shows that the trade between these two countries is greater than that between England and any other country in the world.

Note the second heavy band of trade running from England around Spain through the Mediterranean, the Suez Canal, down between Asia and Africa, and then off to the Far East. In the next chapter we shall learn the very great importance of this path of sea trade.

Note likewise the fairly heavy paths of trade from England to various points in South America and around the coast of Africa to the Orient.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

Adams, Peter. Clipper Ships Done in Cork Models. E. P. Dutton and Company, Inc., New York. Histories of some of the most famous clipper ships, with directions for making simple models with cork, matches, and pins.

Allen, Nellie B. Europe. Ginn and Company, Boston, 1928. See Chapter II, "Ships and Shipbuilding."

Bacon, Edwin M. The Boy's Hakluyt (new edition of "English Voyages of Adventure and Discovery. Retold from Hakluyt"). Charles Scribner's Sons, New York, 1910. Thrilling stories of England's early bid for sea mastery.

Bridges, T. C. The Young Folk's Book of the Sea. Little, Brown & Company, Boston. Interesting sea lore, together with the story of commerce and social life that has developed upon and about the sea.

Chatterton, E. Keble. Ships and Ways of Other Days. J. B. Lippincott Company, Philadelphia, 1924. Chapters IX–XIII include a good description of changes in English ships since the 1400's.

Daniel, Hawthorne. Ships of the Seven Seas. Doubleday, Page & Company, New York, 1925. A story of the remarkable development in ships from slow sailing vessels to swift ocean liners.

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Finger, Charles J. (Editor). Heroes from Hakluyt. Henry Holt and Company, New York, 1928.

Fletcher, R. A. Steamships and Their Story. J. B. Lippincott Company, Philadelphia, 1910. An excellent book, well written and well illustrated. Chapters III–X portray the startling growth of England's shipping industry.

Gosse, Philip. History of Piracy. Longmans, Green & Company, New York, 1932.

Howden, J. R. The Boys' Book of Steamships. Frederick A. Stokes Company, New York, 1913. An interesting book, describing the development of modern vessels.

Lubbock, Basil. The Log of the *Cutty Sark*. Charles E. Lauriat Company, Boston, 1924. A thrilling, true story of a sea clipper that plied between England and the Far East.

Synge, M. B. A Book of Discovery. G. P. Putnam's Sons, New York, 1925. Chapters VI–XXVII present interesting episodes of the way in which daring Europeans extended by exploration the boundaries of the known world.

Van Loon, Hendrik W. Man, the Miracle Maker. Horace Liveright, Inc., New York, 1928. This book tells of many inventions which expanded the "narrow world of the Middle Ages."

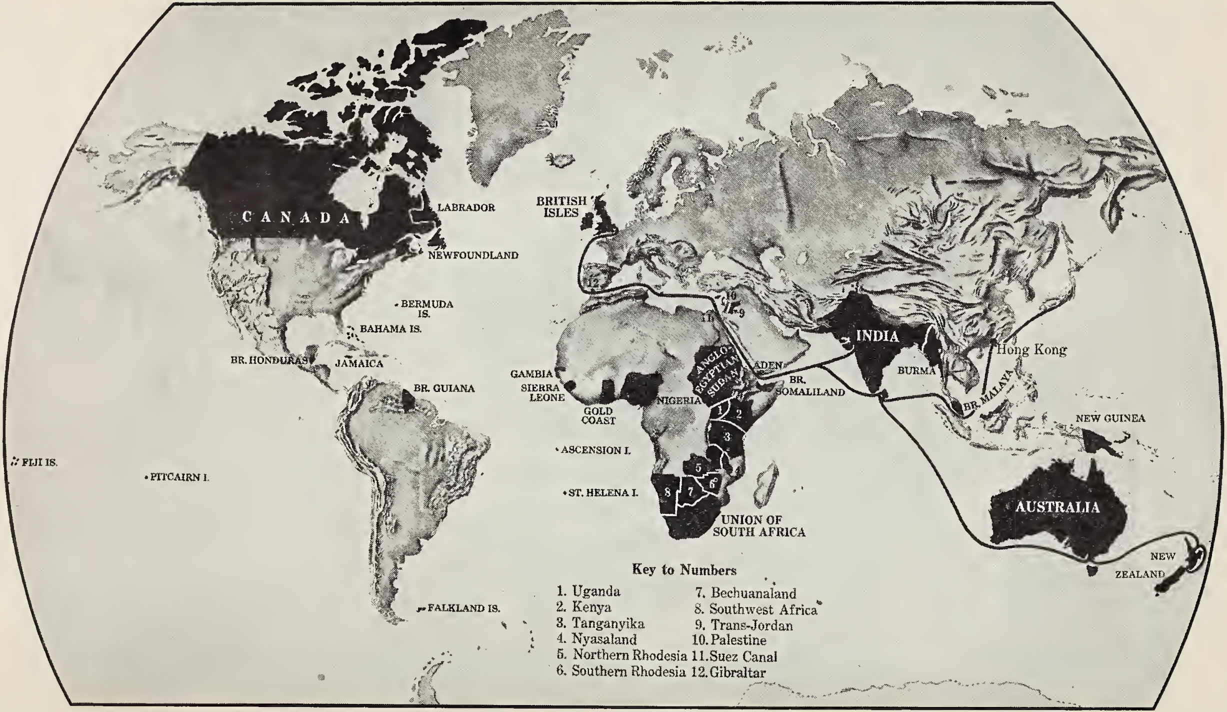
CANADA
LABRADOR
NEWFOUNDLAND
BRITISH ISLES
BERMUDA IS.
BAHAMA IS.
BR. HONDURAS
JAMAICA
BR. GUIANA
GAMBIA
SIERRA LEONE
GOLD COAST
NIGERIA
ANGLO-EGYPTIAN SUDAN
ADEN
BR. SOMALILAND
INDIA
BURMA
Hong Kong
BR. MALAYA
NEW GUINEA
AUSTRALIA
NEW ZEALAND
UNION OF SOUTH AFRICA
ASCENSION I.
ST. HELENA I.
FALKLAND IS.
FIJI IS.
PITCAIRN I.
Key to Numbers
1. Uganda
2. Kenya
3. Tanganyika
4. Nyasaland
5. Northern Rhodesia
6. Southern Rhodesia
7. Bechuanaland
8. Southwest Africa
9. Trans-Jordan
10. Palestine
11. Suez Canal
12. Gibraltar

FIG. 53. Lands in every continent of the earth are included within the British Empire. The principal ones are shown in black in the map

CHAPTER V

INDIA: THE CENTER OF THE BRITISH EMPIRE

The Island Kingdom Became Mistress of One Fourth of the Earth

The proprietor of the Paola House, Paola, Kansas, settled back in his armchair with an air of self-satisfaction.

"I tell you, England wouldn't last a month if we stopped shipping goods to her. That little island! Why, look at the size of her — not much larger than this state of Kansas; and look at the way she's fixed — depends on other countries for nearly everything she uses."

A discussion was on its way. The proprietor was questioning England's position in the world today. One of his listeners was defending her. Four traveling salesmen, staying in the small town over the week-end, were forced to lend unwilling ears to the argument.

In a moment a pleasant voice took up England's cause. Everyone turned his head immediately, thinking at the same time that the newcomer must be an Englishman.

"Do you know, sir," said the stranger, "that 'little' England is the greatest trading nation in the world — that she exports almost as much coal as the United States? Do you realize that for 300 years she has been the greatest manufacturer of woolen goods in the world — that she has more than 24,000,000 sheep right now?"

"Yes, that's all right," came from one of the salesmen, who had begun to show interest as soon as the Englishman spoke. "England's got lots of cloth and steel mills, but" — triumphantly —"you can't eat wool and steel. What about wheat and corn and meat? Why, I understand that the British Isles together don't raise one fourth of the wheat they need to keep their people alive!"

"That's true enough; our islands depend on other parts of the world for food. If we should be completely blockaded, we'd be starving in a month. We probably haven't got a month's food supply in England right now. But, let me tell you, it would be pretty difficult to blockade England; and you know why — the British navy. The greatest navy in the world!"

"You're right *there*," broke in another of the salesmen, who evidently enjoyed reading history in his spare time. "England's been mistress of the seas for over 300 years — ever since she whipped the Spanish Armada — except for those two or three years about 1660 when the Dutch were strong enough to fight her successfully right in the English Channel. I remember enough history to know that."

"Sure," the proprietor replied, still unconvinced. "Sure. But we're not talking about war — about successful or unsuccessful blockades. We're talking about not trading with England, and I say she couldn't live a month without the trade of other nations. Suppose Argentina should decide not to ship wheat to you and to buy our coal instead of yours, we *could* sell her what she needs, you know. Suppose she should. What would you do? And, to clinch the argument, you know perfectly well, don't you, that England doesn't raise a pound of cotton, in spite of all the millions of yards of cloth that she manufactures, uses, and sends abroad each year?"

"Yes," the Englishman agreed, with a smile; "yes, not a pound. We bring it all in from the outside."

"Well, then, how long do you think England could stand a trade boycott? We shouldn't have to blockade her; we could simply stop trading with her. You know the people who favor the League of Nations say that that's one way to make a country come to time — just stop trading with her, and soon she'll have to do as the other countries think she ought to."

"That just wouldn't work in the case of England, my dear fellow. You'd have to defeat her navy first. You know Great Britain has colonies and ships. She doesn't need to trade with other countries — that is, foreign ones. Every foreign ship in the world could refuse to sail into a British port, and we could still get the food, cotton, and other things that we need to keep going. Are you surprised? You needn't be. Don't forget our great merchant marine. Do you realize that the British Empire has more ships and cargo sailing under her own flag than any other country in the world? Yes, we are mistress of the seas because we have both a great navy and the greatest merchant marine."

"But," insisted the proprietor, "what if your ships couldn't get into the ports of other countries to get the goods?"

Again the smile came over the confident Englishman's face. "Oho! By 'other countries' you mean foreign countries. Yes, their ports, of course, would be closed to us. But you forget the *British Empire.* We control ports in nearly every part of the earth. We can get millions of bales of cotton from India and millions of bushels of wheat through the ports of Canada and India, both of which are parts of the British Empire. We could get wheat and cattle from Australia, wool, meat, and dairy products from New Zealand, spices and tea from Ceylon, and rubber for our great rubber factories from the Malay States. These also are parts of the British Empire. Why, men, London is the most important trading city in the entire world for the rubber, tea, spices, jute, and other Oriental goods that come from certain ports in the East. And do you realize that the great port of Hong Kong, among others, is under England's control, although China is way on the opposite side of the earth — nearly 12,000 miles away by sea?"

A chorus of objections met his astonishing statements. Undisturbed, he went on:

"You are astonished? You do not think it possible? But it is true, every bit of it. It wasn't true 100 years ago; but since then a great change has come about. Today Great Britain controls to a greater or less degree one fourth of the territory of the whole world, and more than 480,000,000 people. One fourth of the entire population of the earth is under the British flag!"

The Englishman was partly right. Great Britain has vast areas of land all over the world, and these make up the British Empire. From Canada, Australia, New Zealand, India, and many other parts of the Empire she collects food, and from them her ships also carry raw materials for her factories. In return she sends out to these parts of her Empire manufactured goods and coal.

But was not the Englishman partly wrong? Can the British Empire live entirely by itself?

We shall study that matter in this chapter and the next one.

WHAT IS THE BRITISH EMPIRE?

There is a saying among Englishmen that "the sun never sets on the Union Jack." Do you know what that means? It means that no matter on what part of the earth the sun is shining, there is always beneath it some land which is controlled by Great Britain. There is indeed no continent upon some part of which Great Britain has not set her flag. What centuries of fascinating history have gone into the making of this vast chain of territories!

Look at figure 53. Every black region on that world map is a part of the British Empire. Great Britain controls the people living on one fourth of the earth's surface.

This "control" is not absolute. Perhaps the most interesting fact in the history of the British Empire is the increasing self-government in the various parts of the Empire and the change from "colonies" to "dominions." This is reflected in the official name of the British Empire since 1921 — "British Commonwealth of Nations."

At the head of the government of the whole Empire is the king. In all political actions he is guided by the prime minister and his associates, who are responsible to the British Parliament. The members of Parliament are elected by the people of England, Scotland, Wales, and Northern Ireland, which form "The United Kingdom of Great Britain and Northern Ireland." In this book when Great Britain is referred to, the United Kingdom is meant. It included all Ireland for many years, until the Irish Free State, now known as Ireland or Eire, became a self-governing dominion in 1922. Canada and Australia are almost completely free from British *control.* Watch India, where there is a real problem as to how rapidly, *for the good of India as well as of the Empire,* self-government may be introduced. How does the fact that there are different races of people and different religions in India affect this problem?

This, then, is the British Empire — the greatest empire in the world.

In order to know what countries make up the British Empire, find them on your world map (figure 53). These are the larger parts of the Empire:

1. The British Isles
2. India
3. The Union of South Africa and other African territories
4. Canada
5. Australia
6. New Zealand
7. British Malaya

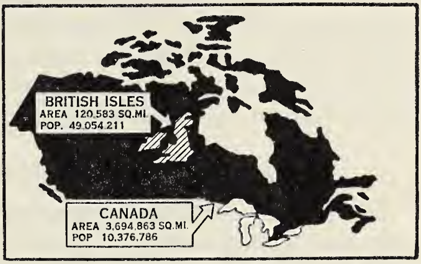

FIG. 54. Compare the area of the British Isles with that of Canada, a part of the British Empire

There are also many islands scattered through the seven seas which belong to the British Empire, and many good ports taken from foreign territories.

How small is Great Britain, the homeland, compared with the huge British Empire? Let us compare the size of the chief areas of the Empire with that of the British Isles. Not one of these is as small as the mother country. Most of the provinces of Canada, of Australia, and of the African possessions, and some of those of India, are each larger than the land that controls this vast empire.

Why does Great Britain want to hold so much of the earth?

Many British people have given their lives on battlefields, in jungles, and on deserts to build the Empire. They have endured cold, heat, hunger, and disease for it. Why?

There are many reasons, of course. Some did it for love of country and pride in the British Empire; some because of an adventurous spirit and the lure of thrilling adventure. Some went out to India or Australia or Canada because England was overcrowded and there was no land to farm, some went searching for gold, and some went to build railroads.

One of the most important reasons, however, was the *desire of Englishmen for a better living.* That desire sent thousands of Englishmen across the Atlantic to settle in North America. It sent thousands to distant South Africa and Australia. That desire played a very important part in building the British Empire.

But the Empire grew, also, chiefly because of *the need of Englishmen for trade.* You have already seen how Great Britain became the very center of world trade. As her trade grew, her Empire grew; the two developed hand in hand. The story of the British Empire is also the story of the change from England of the manors to modern industrial Great Britain. You have already learned most of that story.

How did Great Britain get this vast empire?

How in the world, one wonders, did such a small country gain possession of such vast stretches of land? The thrilling history of Great Britain's empire-building could never be told in one chapter. But since we have only one chapter, we can give you only a brief outline of what happened.

AN IMPORTANT EXAMPLE: HOW BRITAIN GOT CONTROL OF INDIA

The first step: The English East India Company controlled India's trade

The story of the East India Company illustrates well the early history of empire-building. You remember how, in spite of great difficulties, the Company survived and grew wealthy. Even in the 1600's this powerful company not only had a firm hold on India's trade but also had control over her people.

WHAT INDIA WAS LIKE WHEN THE ENGLISH FIRST WENT THERE

India was certainly not like any European country in 1600. The climate was different. Crops and products were different. The people looked different, and their customs, religions, and ways of living were different. Everything seemed strange.

Find India on the map of figure 53, a peninsula, about half the size of the United States, forming the south-central part of Asia. It lies in a very warm zone, extending from about 8° to about 37° north latitude.

Even 300 years ago India was an old and "civilized" country. Behind her stretched several thousand years of history. Even before 3000 B.C. India had been settled by tribes from the north who probably came through passes in the Himalaya Mountains.

The people of the tribes had been hill dwellers. They were much like the people who had settled around the Mediterranean — the Persians, the Greeks, the Romans, and others.

The tribes discovered two splendid river valleys in their new country, the valley of the Ganges and the valley of the Indus. They conquered or drove away the more primitive tribes which they found there, and settled down to lives of simple hunting and farming.

During the many hundreds of years that followed, other tribes came, conquered them, and settled in their place. Old generations died and new ones grew up. This story was repeated again and again. At last a new civilization developed unlike any other. It was the civilization of the India of today.

We cannot find out much about the early life of these Indians. They had not yet worked out a system of writing; so they could not leave written records. They did sing of their deeds and those of their ancestors, however. The songs were learned by children from their parents; and when those children had grown up, they in turn sang the same songs to their children.

The people were divided into classes called castes

Not until about 2000 years ago was the life of India recorded in writing. A code of laws written about 200 B.C. tells us how people worked and lived. The population was divided into classes called *castes*. The system was very complicated at the time the code was written; so we know that it had been in use long before 200 B.C.

This caste system seems very strange to us. All people belonged to one caste or another. No person, so long as he lived, could ever change his caste. Men were obliged to marry persons who belonged to the same caste. The occupations of people were fixed by the caste into which they were born. If a man attempted to leave the caste in which he was born, he became an "outcaste," in which case his position was "less than the dust."

In the caste system a few people, called the Brahmans, came first. They were the most important people in India. A Brahman was of the priest class. He was free to marry, but his wife had to be the daughter of a Brahman.

Below the Brahmans was a class which included a small number of princes and warriors.

Below this caste was that of the merchants and farmers and craftsmen. There were many more of these people than of the higher castes.

Lowest of all were the peasants, who did the hard and unpleasant work. Most of the people in India belonged to this caste.

The caste system still exists today, but it is very much changed. There are no longer any members of the second of the ancient classes — "the small number of princes and warriors"; that caste has disappeared. But the other castes have divided into more and more classes until it is very hard for us to understand the differences.

Throughout the old India these various classes lived together in villages

The people of India lived in hundreds of thousands of little villages. Village life in India, however, was not at all like village life in England. The land which the villagers farmed did not belong to a lord nor to individual peasants, but to the whole village itself. The farmers all worked together on it.

In the villages there were warriors to protect the people. Since the warriors belonged to a different caste from the farmers, they never did any farming.

The Brahmans of the village kept the temple and the school. The temple was the village center. Three fourths or more of the villagers went there every day. Children left flowers there on their way to school. After work the villagers stopped there for an hour or so of quiet thought. The village temple was also the village theater. The Brahmans often gave plays there.

The village activities were definitely fixed according to caste, and customs grew up around them. Manners were carefully studied and were very important. For example, a boy tells us of his father's homecoming. At his arrival the master sent a servant to his wife's servant with this message: "The master has returned and has washed his feet. May he enter the presence of the light of the household?" And then the wife came out, and in the cool of the evening they talked together.

The craftsmen tried to make each article a thing of special beauty

In India people strove to be poetic and "spiritual," above all things. Even today all over India thousands of people turn daily to the rising sun and chant:

> O blossom of eastern silence, wandering upon paths dustless and untainted by the feet of man, bring thou the dawnward way, and be our advocate before the speechless God![1]

In the villages there were many crafts. The craftsmen worked together in the same manner as the farmers worked together on the land, and their caste was equal to that of the farmers.

The craftsmen had a great love for beauty. The making of a Cashmere shawl shows how this entered into their work. The making of a shawl took twenty days. The workers wanted every shawl to be a beautiful, delicate thing, and the making of it was a ceremony.

Before the shawl was begun the craftsmen stood together, each one holding his piece of wool. There were no directions, no printed instructions. The craftsmen all knew how to weave very well, and they worked under the direction of a master. The master craftsman carried in his imagination the picture of a beautiful pattern. He gave directions. Every worker followed his instructions. The pattern began to grow while the men chanted at their work.

The master directed the making of many complicated designs of flowers, plants, and animals. He never used models or patterns, but worked out the pattern in his mind.

The craftsmen continued to sing. The shawl continued to grow. Everybody worked faster and faster, concentrating deeply on his task. They wove as though in a dream, thrilled by the beauty which each was helping to create.

At last the delicate, beautiful shawl was completed. There is no other like it in the world. It is a work of art, which the craftsmen named "The True One" or "An Evening Dream."[2]

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[1] Dhan Gopal Mukerji, *Caste and Outcaste*, p. 7. Published and copyrighted by E. P. Dutton & Co., Inc., New York, 1913; used by permission.

[2] Adapted by permission from Dhan Gopal Mukerji's *Caste and Outcaste*, chap. vii, "The Cashmere Shawl." Published and copyrighted by E. P. Dutton & Co., Inc., New York, 1923.

Some craftsmen were not so important as others; for example, the potter was one of the lowliest craftsmen in India. Nevertheless his work was to him a sort of religion, as the making of the shawl was to the shawl-makers. He prayed for inspiration to do it well. On his wheel he molded clay vessels for household use. Each piece that he turned out was the only one of its kind. He did not want to make another like it. It was something of his own, something he had created, and he named it before he sold it.

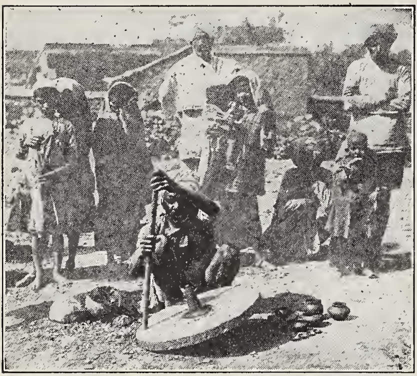


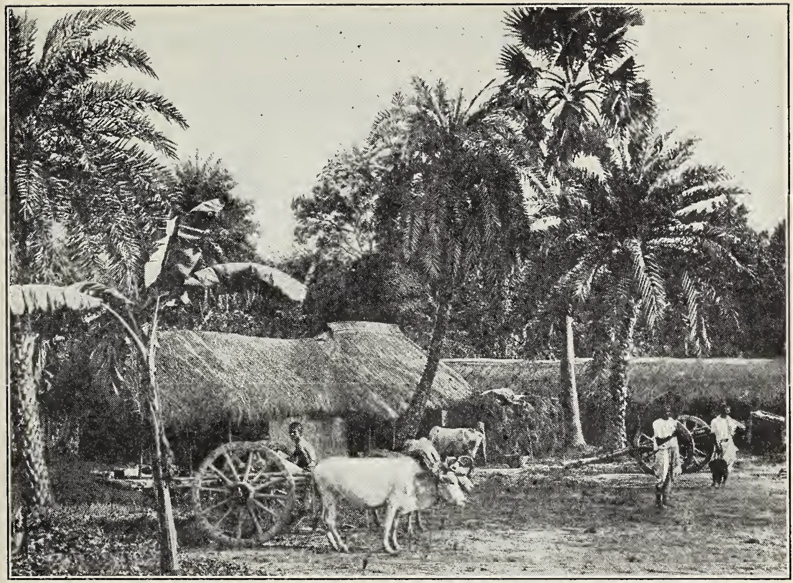
Fig. 55. If we could show a photograph made 1000 years ago of an Indian potter and his wheel, you would not see much difference between that picture and this one. Notice that no two pieces of pottery (at the right of the potter's wheel) are exactly alike in size and shape

That was the way people lived in the countless villages of old India. That is much the way they live today in most of them. Except in the villages near the cities, India has changed little.

That, then, is the way the English traders of the East India Company found the Indians living when they came to their country.

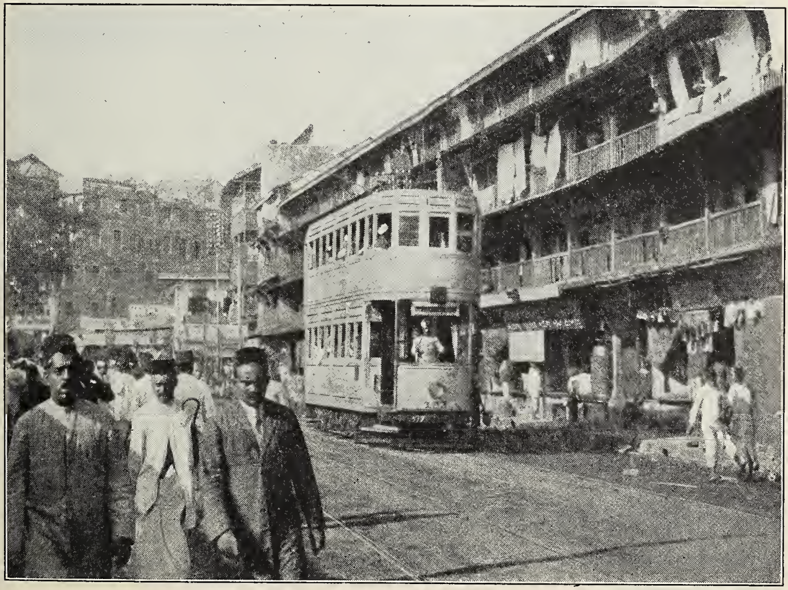
The second step: Making India part of the British Empire. The English East India Company ruled the Indians and tried to make them live according to the British way

Brief as this sketch of life in India has been, you have seen that it is not at all like the British way of living. You cannot imagine an Indian craftsman wanting to go to sea to build up a world trade for India. You cannot imagine him eager to leave his village to go to a city and work in a factory. You feel sure that the shawl-maker would not enjoy making his shawl on a machine. In the midst of clacking looms he would hardly be able to work out in his mind a beautiful design. He could not even chant as he worked, for the roar of turning wheels would drown his voice.



Ewing Galloway

FIG. 56. A farmhouse (left) and barn (right) in India today. The muscles of human beings and animals still do all the work on most of India's farms



Publishers' Photo Service

FIG. 57. A scene in Bombay. What is there in this picture that shows the influence of European methods upon India?

When the traders of the English East India Company went to India, they went to buy India's products; they did not know how the people lived. The Indian people were not eager to show these strangers what they thought or how they lived. Englishmen were traders, and their stops in India were regarded as merely short visits.

Years, even tens of years, went by. Gradually the East India Company got more power over the Indian people. About 1689 the English king granted the Company a charter to take land, coin money, and command fortresses and troops, to make war and peace, and to arrange treaties, or agreements. The English East India Company, you see, was beginning to *govern* India.

Even after the British traders had been in India for a long time, they still did not really understand the Indians. Nor did the people of India understand the British traders.

The British governors of the Company honestly thought that the British way of living was better than that of the Indians. So, after 1800, they made change after change that disturbed the Indian people very much.

For example, they changed the way of owning and farming the land. In 1816 the English East India Company divided some of the village land equally among the inhabitants. Every person had a small plot to cultivate. This upset their lives; for the farming caste could no longer do the farming for the whole village.

Things were in a bad state. Some of the people sold their farms to others who were more prosperous. Others tried to farm, but were not able to make a living. They fell into debt or hired themselves out to other farmers.

The whole caste system was turned topsy-turvy. As things became more and more tangled the people in India began to object still more to British management.

The third step: The East India Company chose a governor to rule

Throughout the 1700's and 1800's the East India Company had one difficulty after another with the people of India.

To keep the people quiet, the officials of the company hired native warriors to subdue the tribes which were beginning to rebel. When one group of native people stirred up trouble, the company hired another group to put down the rebellion. Sometimes the hired soldiers refused to fight, and then new troops had to be hired. Such things happened time after time, and the Company was kept busy hiring troops to quiet the uprisings.

The governors of the Company finally thought that in order to keep peace they would have to establish some sort of ruling power. So they chose an Englishman to be governor-general of a large number of Indian states. The governor-general had many British assistants. At that time the parts of India which the English governed were scattered, and there were independent states lying between the states under British control. By bribes and wars the governor-general finally secured control over most of this land, and a large part of India was brought together and made into British territory. *It was still ruled, even in the early 1800's, however, by the East India Company and not by the British government.*

Of course the rest of India fought this move, and even the people in the so-called British part of India were restless. There was constant trouble. Again and again the Company was forced to ask for troops from the home government in Great Britain. People in England began to say that the British government must take control of the part of India that was in the Company's hands. They thought that government rule instead of Company rule would put an end to most of the trouble.

So it was that ill feeling against the British had been smoldering for a long, long time. It needed only one violent happening to fan it into a blaze. Many minor ones had occurred, and small groups of soldiers had mutinied again and again. Finally, in 1857, a real rebellion spread throughout many districts.

The fourth step: The British government took complete control of India

Although the Company's troops succeeded in putting down the revolt, the British government stepped in. Large numbers of troops were sent from Great Britain to put down the uprising, and the East India Company had to give up its rights to govern India. A new governor-general and other officials representing the British crown were sent to rule the various parts of the country. Great Britain added hundreds of millions of people and a large territory to her Empire, and India became her most valuable possession. In 1877 Queen Victoria of England was officially declared Empress of India.

India Today

How can India's many people live in such a small area?

In British India there are more than 260,000,000 people living within about 1,000,000 square miles of territory. In the independent Indian states live about 78,000,000 more. In other words, the Indian population makes up nearly 15 per cent of the people on earth and lives on a little over 3 per cent of its surface. Although India is not much more than half as large as the United States, almost three times as many people live there. Why do so many people live in India? Is it because of manufacturing and trade? Do the people depend upon the outside world for food?

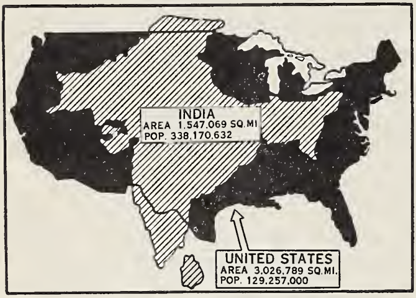


Fig. 58. India, a little more than half the size of the United States, has a population nearly three times as great

Not at all. The people of India are living in hundreds of thousands of little farming villages. There are only a few large cities — Calcutta and Bombay, with more than 1,000,000 people each; Madras with more than 600,000; and a few others. But these cities are not manufacturing centers. They are old trading cities and centers of government.

No, it is not coal, iron, engines, and machine manufacturing that account for the tremendous population of India, as they do for the population of the industrial countries of Great Britain and the United States. More than anything else, a climate and a soil favorable for the growing of rice account for it; for wherever rice can be grown abundantly many people can live.

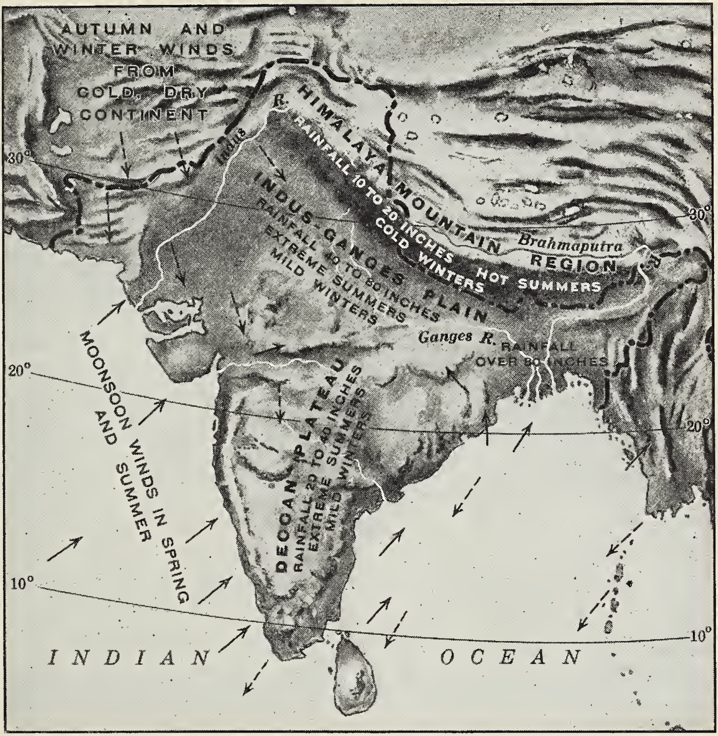

AUTUMN AND WINTER WINDS FROM COLD, DRY CONTINENT
Indus R.
HIMALAYA MOUNTAIN REGION
RAINFALL 10 TO 20 INCHES
COLD WINTERS
HOT SUMMERS
Brahmaputra R.
INDUS-GANGES PLAIN
RAINFALL 40 TO 80 INCHES
EXTREME SUMMERS
MILD WINTERS
Ganges R.
RAINFALL OVER 80 INCHES
MONSOON WINDS IN SPRING AND SUMMER
DECCAN PLATEAU
RAINFALL 20 TO 40 INCHES
EXTREME SUMMERS
MILD WINTERS
INDIAN OCEAN
30°
30°
20°
20°
10°
10°

FIG. 59. Winds and rainfall and temperature help to make the climate of India. Do you see the three natural regions of India?

Location, Size, and Climate of India

The map of figure 59 will show you that India is a large territory (over 1,800,000 square miles) stretching from 8° north latitude to 37° north latitude.

Half of the country is in the Torrid Zone and half in the North Temperate Zone. One expects, then, that much of India is hot, or at least warm throughout the year. It is indeed. In many places during the summer the thermometer goes as high as 125° and more; seldom does it drop much below 80°. However, not all of India is as hot as this. Certain regions are high above sea level and therefore are cooler.

Nature has divided India into three fairly different regions.

One is the mountainous region on the far north. The snow-covered Himalayas, the highest mountains in the world, form a vast wall between India and the rest of Asia. Because of their height the temperature in this region is cool in summer and very cold in winter.

Another natural region just south of the mountains is the long broad plain formed by the Indus, Ganges, and Brahmaputra rivers. Here the temperature is high throughout the year. The soil and climate make the raising of rice and cotton possible.

The third region is the Deccan Plateau, which stands 1000 to 3000 feet above sea level. This covers a large part of central and southern India. While the lower parts of the plateau are very hot, the temperatures in the higher portions are mild and pleasant. The soil and climate in much of this highland are just right for raising crops; millet is the chief food crop here, although rice is grown in the moister sections.

The year is marked out by two seasons — a short wet one and a long dry one. In June, July, and August, winds called the summer monsoons blow in from the Indian Ocean with rain clouds. As they strike the land and rise, the moisture in them falls as rain. The lowlands of the northern plain and the low plains on the coast get large amounts of rain. Day after day, week after week, it rains. In most years 40, 80, or even 100 inches of rain fall in the lower places.

Then, for several months, there is almost no rain at all. Much of this time winds are blowing down from the north. Because they have blown for thousands of miles over the dry lands of Asia they carry very little moisture. Most of the little they do carry falls as rain on the sides of the Himalayas; so that when the winds reach India, there is little moisture left. The people of India must fill wells and tanks during the wet season so that they will have water during this long dry season.

As we said on page 104 the climate of much of India is excellent for rice-growing. In fact, one third of the land of India is planted with rice.

Rice is not India's only important crop, however. Every year she raises great quantities of wheat. Large crops of cotton and millet are also raised.

The poverty of the peasants

Nearly three fourths of the people of India are peasants living in little villages in much the same way as their ancestors have lived for thousands of years. They are crowded together in the fertile valleys of the Ganges, Indus, and Brahmaputra rivers. The peasants in many of the regions get only a very poor living out of the soil, barely enough to eat. There are so many mouths to be fed that even huge quantities of rice are not sufficient. The peasants live from day to day, from hand to mouth, hoping for a better day tomorrow.

> Even in normal times Indian villages swarm with the hungry. When I was in boarding school as a boy, my roommate and I cooked our own food. The poor in the neighborhood, knowing that the school housed a hundred boys who had enough to eat, used to come in procession one after another begging us for food. A morsel here, and a morsel there, and soon we had given away all that we had prepared for ourselves and had to cook more or go unfed.[1]

In the Rural Districts of India Handicrafts and Trade Are Carried On as Well as Farming

Life in most of the villages of India is as simple as that of Europe in the Middle Ages. Every community has its own weavers, its blacksmiths, and its potters. The Indian peasants rarely ever leave their little villages. Hence peddlers go about from village to village with their small stock of goods loaded on a man called a coolie, or on a pack animal.

In the large villages there are market places. In the largest ones there are a few shops as we know them. In the very smallest villages a farmer may keep a tiny store in his house.

India Is Being Changed Slowly by the Europeans from an Agricultural to an Industrial Country

The old India is gradually beginning to disappear. In many places factories have been built by British manufacturers. Woolen mills, silk mills, cotton mills, tanneries, and paper factories appear from time to time. In Burma the British are laying out huge rubber plantations. In the chief ports modern docks have been built, and ocean transportation is increasing. Indian port cities are beginning to look like those of Europe and America.

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[1] Daniel Swamidoss, "A Way Out for Rural India," *Asia* (New York), March, 1923, p. 198.

Even during the nineteenth century the village peddlers were selling British cloth instead of native homespun materials. Throughout India the native weavers are losing their customers because of the new machine-made goods. The village metalsmith too is losing much of his business. Many British machine-made tools, implements, and household utensils are replacing the handmade products, because machine-made goods can be sold for a much lower price. Indian handicraft is slowly dying.

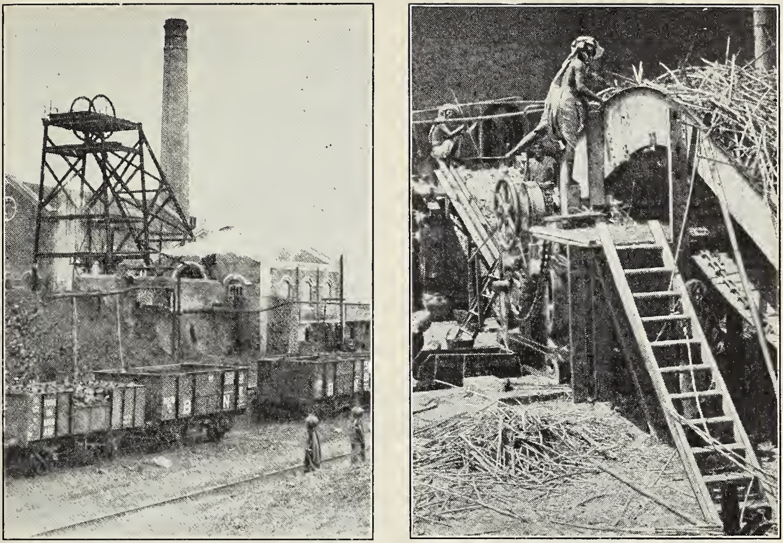
Transportation throughout India is changing steadily too. Main railroad trunk lines have begun to form a network over India. British money has built these railroads. Today there are many more miles of railroad in India than in all the rest of Asia. It is interesting to note too that in India there are about 20,000 more miles of railroad than in Great Britain.

The railroads carry British-manufactured goods into the interior of the country. Because of them India is being changed slowly from an agricultural to an industrial country; for with safe, regular, and easy transportation, more goods can be shipped.

India Is a Valuable Market for England's Manufactured Goods

British merchants carry on a tremendous trade with the Indian people, selling them more than $200,000,000 worth of goods a year. This is more than Great Britain sells to any other country — to the United States, to Germany, or to France. It is nearly twice as large as the exports to Canada. Although the Indian people are very poor, there are a great many of them — about six times as many as the people of Great Britain. Hence, even though any one village purchases only a small amount of goods, the total amount sold to India is very large, as figure 61 shows.

In the cities of India British machinery, wagons, automobiles, trucks, and steam engines are being sold in large quantities. There is a small class of very wealthy people living in the cities and towns. These people live in luxury and splendor and are

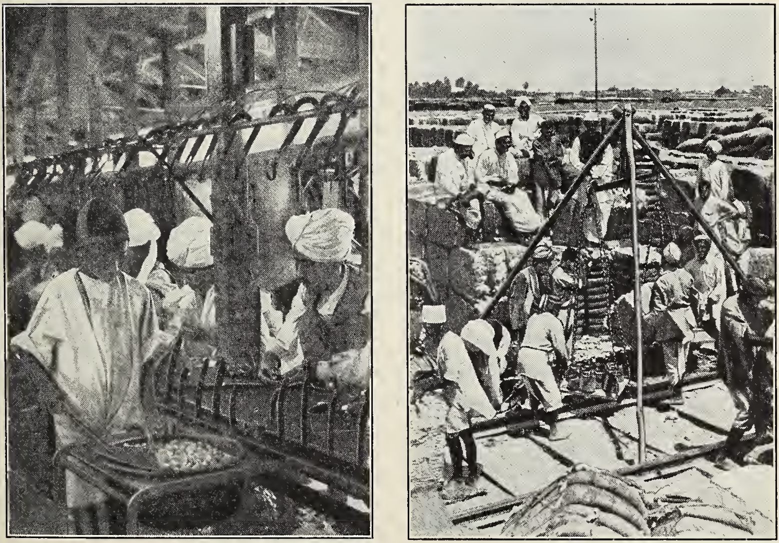


Keystone

A coal mine about seventy-five miles from Calcutta

Ewing Galloway

Grinding sugar cane in a modern mill near Lucknow



Ewing Galloway

Reeling silk off cocoons in a Kashmir silk mill

Gendreau

Weighing bales of cotton on the docks at Kiawari

Fig. 60. Some of the industries in India

demanding European standards of living, and so they are buying many products from Great Britain.

So Great Britain wishes to keep India in the British Empire and to control her trade.

INDIA SUPPLIES GREAT BRITAIN WITH NEEDED FOOD AND RAW MATERIALS

From India Great Britain buys large quantities of food and raw materials, which are necessary for her existence. India sends huge shipments of raw cotton to feed the whirring mills of England's textile cities. India also sends tea, wheat, and rice in large amounts, as well as jute, wool, and leather.

Thus the English business man has profited greatly from India, and English industries as well as their workers depend much upon Indian products and Indian markets. From the point of view of trade India is by far the most valuable unit in the British Empire. This story of Great Britain's taking India is very brief, but we do not have space to tell more of it here.

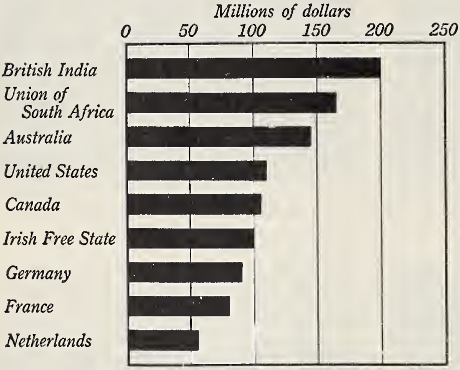


FIG. 61. This graph shows Great Britain's best customers and the amount of goods they buy of her. Note particularly that India buys more from Great Britain than does any other country

This, then, is the way Great Britain made India a part of her empire

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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CHAPTER VI

THE BRITISH EMPIRE REACHES AROUND THE WORLD

Turn back to figure 53. See how the British Empire stretches around the entire earth! Three hundred years and more of history have gone into the making of it.

India has a larger population than any one other part of the Empire, but India has not as much land. Other parts are much larger in land area. Compare the size of Canada, Australia, and the African possessions with India. How many times larger than India is Canada? Australia? the British possessions in Africa?

In the case of India, England had to conquer and govern an old, well-developed civilization. The addition of these other colonies to the Empire came about in quite different ways. Most of Canada and all of Australia and South Africa were wilderness. When Englishmen first went to these regions, the land was for the most part unknown to Europeans and was inhabited mainly by primitive, half-civilized natives. The country had to be explored and settled.

You know a little of how they did that in North America in the seventeenth and eighteenth centuries. Here they established the thirteen colonies, which afterward became the United States of America. At the same time they were settling in the southern and eastern parts of Canada. There they cleared the wilderness, cultivated the soil, and built their homes. Some towns and cities grew, and Canada has become a dominion of more than 10,000,000 people.

Many years later, in the late eighteenth and early nineteenth centuries, other British people were moving halfway around the world to settle the coast lands of Australia and New Zealand. Still later in the nineteenth century British communities were beginning to appear in the interior of South Africa. All these new lands grew into rich colonies.

Daring Britons in search of homes, fortunes, or adventure went out to each region and built up a British civilization there. They took with them the English language, English ways of dress, English laws and customs, English ways of thinking. They tried to live in their new homes just as they had lived in Great Britain.

Today, after many years of absence from the mother country, or even though they may never have visited Great Britain, the people of Canada, Australia, South Africa, and other British regions have an attachment for their fellow Britons and for Great Britain. The Empire may really be considered a family of British nations.

There are many interesting stories told about the strange kinds of life which Englishmen found when they entered the new continents. The stories of the struggles they experienced in their new surroundings are exciting. There were often unfriendly natives, wild beasts, or barriers of nature to conquer.

We can merely outline briefly the manner in which the other chief parts of the Empire were claimed by the British. The story of each possession is new and different from that of India, but the general plan is much the same.

The British Empire Includes Important Possessions in the Mediterranean Region and in Africa

Great Britain took lands in the Mediterranean region

For more than 200 years Great Britain has taken land in and around the Mediterranean Sea. One by one she has added to her Empire the following:

1713 The fortress of Gibraltar, at the western entrance to the Mediterranean Sea.
1814 The island of Malta.
1839 Aden, which stands on the north shore of the exit from the Red Sea.
1875 Chief control of the Suez Canal.
1878 The island of Cyprus.
1882 Occupation of Egypt (now independent except for that part called the Anglo-Egyptian Sudan).
1884 British Somaliland, opposite Aden on the Red Sea.

Great Britain's struggle to secure these lands was a long one; and though these places are unimportant in size, it was necessary that Great Britain control them.

Why did Great Britain want these lands?

There were two reasons: (1) to help her to get much of the trade in the rich Mediterranean region; (2) to protect the sea path of her ships to India. The second reason is probably the more important.

The land around the Mediterranean Sea has been an important trading region for thousands of years. Even today it is still a vast region of trade. Nearly 200,000,000 people live around it and depend upon its shipping for trade with the outside world. Recall the countries that border on it: France, Spain, Italy (all three with colonies in Africa), Greece, Yugoslavia, Turkey, Syria, Palestine, and Egypt.

Beyond these countries, and also depending on the trade of the Mediterranean, are other European peoples — Russia and all the northern European countries, who also want to share in this great trade.

Great Britain's first reason for taking land in the Mediterranean, therefore, was the desire for trade. But the second and even more important reason was to protect her sea path to India.

England holds the two openings to the Mediterranean Sea — Gibraltar and the Suez Canal

On the map of figure 62 the Mediterranean looks almost like a huge lake over 2000 miles long and from 300 to 500 miles wide. There is land on all sides of it. It would be an inland sea were it not for the two small openings. One is at the west leading into the Atlantic. There, at the southern tip of Spain, stands a great rock, Gibraltar, built by nature as though to guard the narrow channel. Probably there is no stronger fortress in the world than that on Gibraltar. Its guns could keep all ships from passing into and out of the Mediterranean.

Great Britain took Gibraltar in 1713, put big guns on it, and still holds it today. This fortress, together with the British navy, practically gave Great Britain control of the passage of the Strait

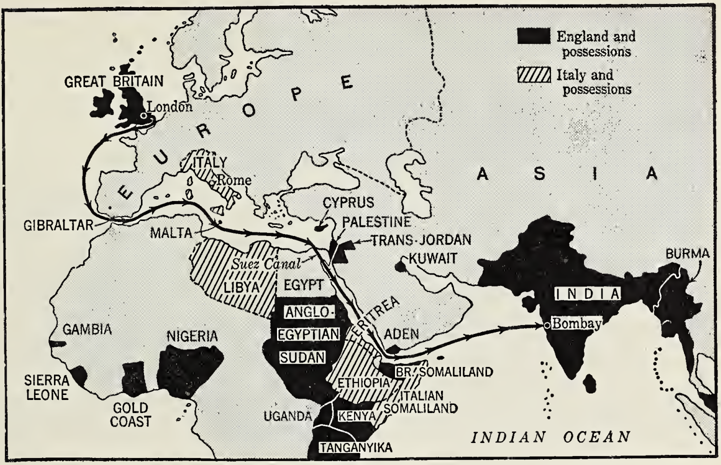
England and possessions
Italy and possessions
GREAT BRITAIN
London
EUROPE
ITALY
Rome
ASIA
GIBRALTAR
MALTA
CYPRUS
PALESTINE
TRANS-JORDAN
KUWAIT
Suez Canal
LIBYA
EGYPT
ANGLO-EGYPTIAN SUDAN
ERITREA
ADEN
INDIA
Bombay
BURMA
GAMBIA
NIGERIA
SIERRA LEONE
GOLD COAST
ETHIOPIA
BR. SOMALILAND
ITALIAN SOMALILAND
UGANDA
KENYA
TANGANYIKA
INDIAN OCEAN

FIG. 62. British possessions along the trade route from Great Britain to India

of Gibraltar, thus protecting her trade in the Mediterranean region. Today it protects also her direct route to India.

At the southeastern end of the Mediterranean is another gateway for ships — the Suez Canal. This leads to the Red Sea and so to the Indian Ocean. Until the Suez Canal was dug, European ships had to sail all the way round southern Africa to reach the Indian Ocean. The route was long and dangerous; but for many years it was the best route for British ships.

British merchants, however, hoped that an easier way might be found. Finally, in 1869, a canal through the Isthmus of Suez was completed by a French company. This was not a new idea. Traders had long dreamed of it. But until 1869 no nation had succeeded in making the dream come true.

The new canal cut in two the narrow strip of land connecting Africa and Asia. The opening of this passage shortened the voyage between European ports and the Far East by about 5000 miles. The possession of the Suez Canal therefore became of the greatest importance to Great Britain. In 1875 her government secured control of the stock of the company which built it. Thus *Great Britain became mistress of both mouths of the Mediterranean* — the fortress of Gibraltar on the west and the Suez Canal on the east.

Other European trading companies demanded that Great Britain allow ships of all nations to travel through the Suez Canal. So in 1888 several countries signed an agreement stating that the canal should "always be free and open in times of war as in times of peace to every vessel of commerce or of war, without distinction of flag." By gaining control of it, however, Great Britain made sure that no other country could close this convenient passage to India.

To protect her sea path to India, Great Britain occupied Egypt and other Mediterranean lands also

After 1875 Great Britain thought that if she were to control the Suez Canal she must control Eygpt too, as the canal was dug through land which belonged to Egypt. Moreover, there was danger that some other foreign power might get control of Egypt and so interfere with this shortened route to India. So in 1882 a British army went into Egypt. The Egyptians resisted the invasion; but they were weak, and Britain was strong. In the end the Egyptians submitted.

There is not enough space in this book to give a good description of Egypt, but we need at least a brief glimpse of life there. Egypt had a powerful river-valley civilization when India was still young and when Europe was the home of wandering barbarian tribes. Many centuries ago, however, Egypt ceased to play an active part in the world. It had become a land of farmers scattered along the river Nile. Today it is the home of millions of people.

Although Egypt was not a rich country, Great Britain saw advantages in holding it. In addition to containing the Suez Canal, Egypt could raise large crops of wheat and cotton, two products needed by the British people. In the third place, the Egyptians were fairly good customers for British manufactured goods. Finally, business men in Britain thought that investments in Egypt would bring them good profits. So, for these four reasons, many British people wanted to bring Egypt into their Empire. While the British controlled Egypt (1882–1922), Egypt did prove valuable for British business interests. More than $400,000,000 in British money is invested there in railroads, banks, and factories.

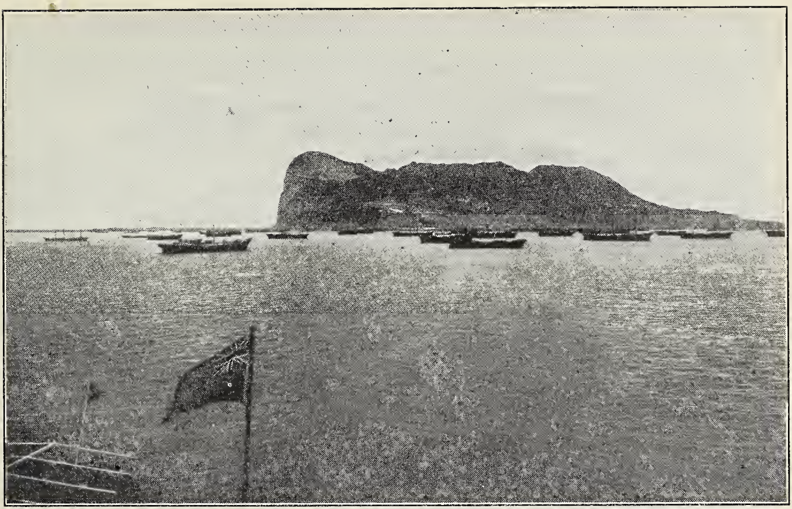

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Fig. 63. Gibraltar stands like a sentinel guarding one gate into the Mediterranean for Great Britain

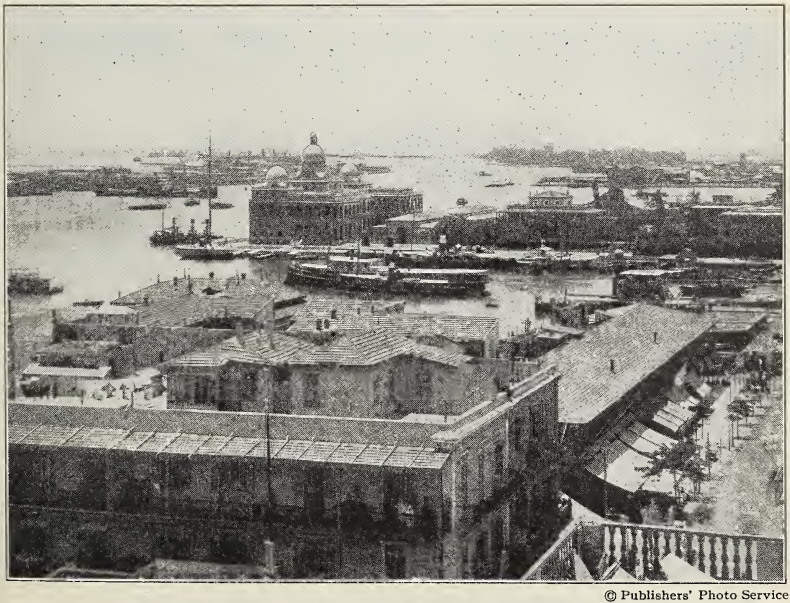

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Fig. 64. Port Said, the entrance to the Suez Canal, the southeastern opening of the Mediterranean. This artificial waterway shortened the route from Europe to the Far East by 5000 miles. Great Britain gained control of it in 1875

In 1922 Great Britain recognized the independence of Egypt. However, it is generally agreed that she cannot permit her routes to India or to the Anglo-Egyptian Sudan to be interfered with. Although England does not possess Egypt today, during the 40 years she controlled it she built up a flourishing trade. Even now Egypt buys more goods from her than from any other country.

Great Britain's Empire Includes Vast Possessions in Central and Southern Africa

The British possessions which we have considered thus far are tremendous in size and population. But we have not mentioned all Great Britain's possessions yet. Another vast region which was added to the Empire late in the 1800's is a huge area of land in central and southern Africa.

Great Britain is not the only European country which owns land in Africa. France owns about one third of the continent. Belgium controls a vast central colony. Italy and Portugal have colonies there. Before the World War, Germany had large ones. Almost the entire continent has been divided among European countries.

Africa is a land marvelously rich in resources

Africa was long called "the dark continent." It was well named, for until the 1800's its great interior was almost unknown to Europeans. Dense jungles, wild beasts, deserts, and black savages offered a terrifying barrier to white men. It was an unknown land full of sickness and death for many of the Europeans who entered it.

In the later 1800's, however, a few white men did succeed in overcoming the dangers of Africa. What rich treasures — ivory, precious woods, gems, and rubber — they brought back! They reported the discovery of great deposits of copper, tin, gold, and silver.

After 1880 more and more white men risked the dangers of Africa, and many of them became rich. Englishmen, Belgians, Frenchmen, and Germans went into Africa and staked out farms and mines or started rubber plantations. Before 1900 coffee, cotton, cacao nuts, sugar cane, bananas, and tobacco were being grown by Europeans in the warm African climate and shipped to the other continents to be sold.

Britons, of course, were among the first white men to explore Africa and to develop trade there. Empire-building was becoming the dream of many adventurous Englishmen, and the dark continent of Africa attracted them. They had entered Egypt and the Anglo-Egyptian Sudan.

You have learned that Egypt became independent. The Anglo-Egyptian Sudan, however, is still a part of the British Empire. It is a great grazing and farming country. The native black people tend great herds of camels, cattle, sheep, and goats. Over 5,000,000 herdsmen and farmers live in little villages scattered over 1,000,000 square miles of territory. By means of irrigation the Anglo-Egyptian Sudan produces for Great Britain increasing amounts of cotton. Together with Egypt, it was a possession well worth having; for it helped both to make the trade route to India safe and to supply Great Britain with food products. In the 50 years after 1870 Great Britain took nearly one third of the continent of Africa.

Today the British control in Africa over 3,800,000 square miles, an area larger than the United States. This gives the British government an unbroken stretch of territory, about 4000 miles long, from the southern boundary of Egypt on the north to the Cape of Good Hope on the south.

The Union of South Africa

On the map following page 128 find the Union of South Africa, tucked away at the southern tip of the continent. Of all the British possessions in Africa this is the only self-governing dominion.

A traveler's first glimpse of this country is rather breathtaking, for it is a land of great extremes — extremes in geography, in race, in civilization. Here he moves through every kind of countryside and climate. In the winter he travels from the Cape of Good Hope over snow-covered mountains to the mild "high veldt" of the Transvaal, 6000 feet above sea level. Then, moving down through the low veldt of the Orange Free State and the mountainous valleys of Zululand, he reaches the tropical coast of Natal. From there he goes back to the colorful scenery of the wild-animal country bordering Portuguese East Africa. Again he turns south toward the Cape and travels through roadless Swaziland and around the mountain barrier of Basutoland. Day after day he sees great differences in people and in community life. He meets every kind of skin color from blackest black to whitest white. In this one region he observes every stage of civilization from the simplest Bantu kraal life to the complicated civilization of the mining city of Johannesburg.

The Union of South Africa is a land of vast distances, though it seems to be but a tiny fraction of the whole of Africa. Actually it covers only 470,000 square miles, or 4 per cent of the total area of the continent's 11,500,000 square miles. Only 6 per cent of the people of Africa, the second largest continent on the earth, live in this region.

Four periods in its history

First. In company with the other new countries, the settlement of the Union of South Africa was really a part of the nineteenth-century conquest of the continents by European empire-building nations, especially Great Britain. In 1652 some Dutch people were the first colonists to settle in the Cape. (This was only 29 years after their fellow countrymen had gone to New Amsterdam in North America.) Small bands of Frenchmen, Germans, and Englishmen followed these Dutch settlers to the Cape. Slowly they built homesteads on the low and fertile lands around the southern coast. But not until 1818 was a settlement made across the Orange River, 400 miles inland.

The colonization of South Africa somewhat resembled that of North America from 1620 to 1783. The two were carried on at the same time. Both depended on black slave laborers. In both, land was taken from the natives by conquest and trickery. As a result of five Kaffir wars between 1779 and 1818 most of the land of this region of Africa went to the white newcomers.

Second. From about 1780 to 1830 the British, by force of arms, seized control of the Cape colony from the Dutch. Thousands of British immigrants were entering the coastal lands as far as Natal. In 1818 the British obtained legal title to the territory by cession from Holland. During this period from 1780 to 1830 both the Dutch and the British slowly increased in numbers. They built roads and established schools and colleges. They laid the foundations for an agricultural civilization.

Third. Then followed some 70 years of settlement to the north by thousands of discontented Dutch farmers, called Boers, who were unwilling to live under British rule. This movement northward began with the "great trek" of 1836 and resulted in the establishment of the South African Republic, which later became known as the Transvaal. As these Dutch Boers pushed northward, determined to stake out new farms on the frontier, they came into conflict with native tribes. Sooner or later there was armed warfare in every section. But always the modern guns of the white men won out over the cowhide shields and spears of the blacks. Steadily the natives were defeated and pushed back onto smaller and smaller "reserved" lands.

But the British were not willing to leave the northland to the Dutch Boers. They sent out explorers (David Livingstone, John Speke, and others) to blaze trails across Bechuanaland, Rhodesia, the Congo country, Uganda, and Kenya. Daring and ruthless British empire-builders (especially Cecil John Rhodes) butchered the black tribesmen and steadily crept up on the Dutch settlers. In fact, the Boers had hardly marked out the farms of the Transvaal when British and Jewish traders followed, opened stores, built roads and railroads, and developed the business and trade life of the new country.

In 1889 Rhodes formed a great trading company known as the British South Africa Company, and many English people invested their money in it. In much the same manner as the English East India Company had claimed and governed India, Rhodes's company subdued and then governed the natives of "Rhodesia," as the region soon came to be called. Today Rhodesia is a great stretch of country, covering some 440,000 square miles, in which live more than 2,500,000 natives with only about 65,000 white men.

When the British traders first went into this region, they persuaded the native ruler, Lobengula, to sign papers which gave them, and them only, the right to mine minerals in that country. At once the English opened mines and built settlements and forts.

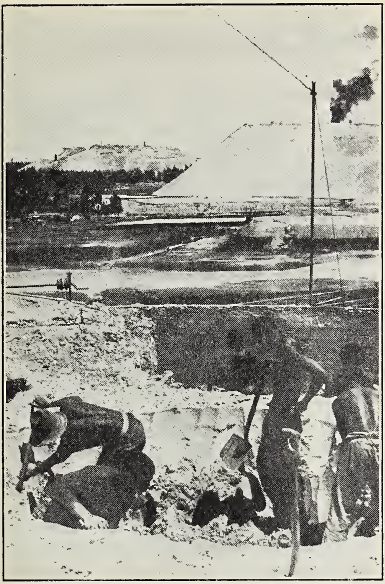
When Lobengula discovered that by signing those papers he had given up the rights of his people, he wrote to Queen Victoria of England, begging her to help him get back control of the land of his people. A letter came back in which she promised him that the Englishmen in Rhodesia "may be trusted to carry out the working for gold in the chief's country without molesting his people, or in any way interfering with their villages, cultivated fields, or cattle."

But matters got worse in spite of the letter from the queen. The British mine-owners forced the natives to work for them in the mines. The natives objected to this and rebelled. Two years after the paper had been signed, English soldiers came in to take charge of the situation.

Warfare followed, and many natives were killed. Lobengula was forced finally to give in. In despair his people said: "Our country is gone, our cattle are gone, our people are scattered, we have nothing to live for . . . we are slaves of the white man, we are nobody and have no rights or laws of any kind."

The discovery of the world's richest gold and diamond deposits in the 1860's and 1870's drastically changed the course of South African development. The climax came in 1885 when an enormous stone reef 100 miles long was found at the Witwatersrand ("white waters' ridge"). It was rich with gold! Scores of mines were opened in one of the greatest gold rushes of all time. The boom town of Johannesburg arose overnight. Again British empire-builders and Jewish business men acted faster and more cleverly than the Dutch; they secured control of the mining industry. Gigantic fortunes were made in the next fifty years, when *over half the gold supply of the entire world was taken from these mines.* Nothing is more important to understand in all South African history than this mining industry. Gold not only created great British fortunes and prosperous trade centers in the Transvaal; it also largely financed the government when the Union of South Africa was created.

The discovery of gold brought Cecil Rhodes and the British empire-builders, who wanted to conquer all Africa for the crown, into direct conflict with the Boers, whose leader was "Oom Paul" Kruger. After 13 years of unrest and disagreement, the Anglo-Boer War (1899–1902) broke out. The Dutch farmers



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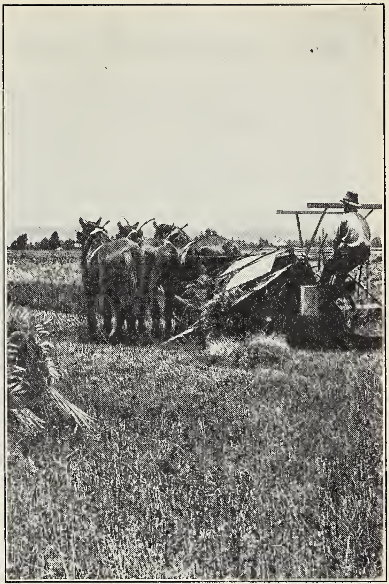
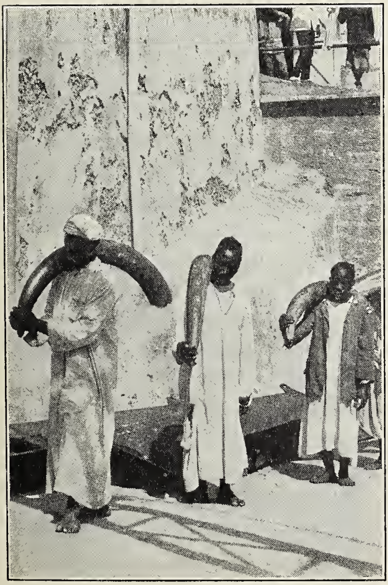
A gold mine near Johannesburg



Ewing Galloway

Harvesting a wheat crop in South Africa



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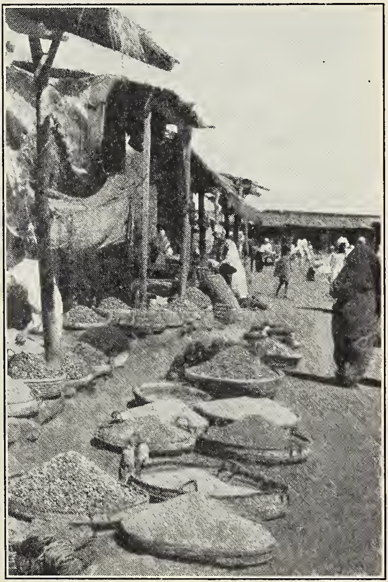
Kenya Colony exports elephant tusks



Ewing Galloway

Dates and grain for sale in Khartoum

Fig. 65. Africa is valuable to Great Britain because of its many products

won the first guerrilla-like battles. However, large numbers of trained soldiers soon came down from Great Britain and defeated the Boers. Thus the British won control of the Transvaal.

Fourth. Eight years later (1910) under an act of the British Parliament, the four provinces (Cape of Good Hope, Natal, Orange Free State, and the Transvaal) were joined to form "The Union of South Africa." This act made it one of the few practically independent dominions of the British Commonwealth of Nations. Then came another astonishing development. As the right to vote was given to all adult white males (and after 1930 to women), bit by bit the British began losing control of the country to the Boers, whom they had defeated. The Boers, you see, outnumbered the British and hence controlled the government. (The Boers still make up 60 per cent of the white population; the British, 40 per cent.)

And although Great Britain conquered the country twice, by arms and by trade, today their property-owners and traders contribute more than any others to the financial support of the country by paying heavy taxes on their mines and commerce.

The problem of too few people

It would not take long for a visitor to the Union of South Africa to conclude that it *must* be a new country. The farming population is small. Large towns or cities are few and far between. The houses in these towns are crude, often made of galvanized iron. They lack furnaces or other central heating equipment. Their water supplies are meager, and the sanitary conveniences are not modern. Around the towns one finds groups of natives living in squalid conditions. The "suburbs" around the few cities show plainly that they were built in haste; hence, with little care. One finds dirt roads everywhere. The railroad tracks are narrow, and the trains run very slowly.

When one thinks of the riches beneath the surface of the land of the Union of South Africa, one stands in wonder at the slow and crude development of its people. There is no doubt that this country is rich in many ways. It has an unusually varied climate. It has great natural resources in soil, coal, iron, gold, diamonds, and copper.

However, one of the chief reasons why this region of Africa has developed so slowly is *lack of people.* In a territory which could easily hold 30,000,000 people,— perhaps 50,000,000,— there are only 9,500,000, and *three quarters of these are poverty-stricken dark-skinned people.* Thus this problem of the Union of South Africa is the very opposite of the population problems facing China, India, and several other industrial nations; namely, that while they have too many people, it has too few.

This fact goes far toward explaining why South Africa is still so undeveloped. There is, for example, a vast acreage of land that could be farmed *if there were enough water*; but water is scarce. Enormous irrigation projects are needed in much of the Union. "Why are they not built?" you ask. Because it is impossible to collect enough taxes from the scattered and poverty-stricken farmers to finance such work. There simply are not enough people who earn money to pay taxes. Furthermore, coal and metals cannot be mined unless there are people with money to buy them. Power plants, railroads, motor highways, airplane service, and telegraph, telephone, and wireless systems cannot be developed and used unless there are people with money to buy such services. Schools, colleges, libraries, hospitals, and the like cannot be built unless there are enough people with money to pay for and support them.

Other British Possessions in Africa

While these events were taking place in southern Africa, Great Britain had been adding other territories to her Empire in central Africa, south of the Sudan. The *Kenya Colony* was made a part of British territory in 1887, and the *Uganda Colony* in 1894. Great Britain then owned a complete right of way from Egypt, on the north to the Cape of Good Hope on the south — with one exception. This exception was a fairly large block of land now called the *Tanganyika Territory* (formerly German East Africa). German colonists had emigrated to this territory, and it was claimed as a part of the German Empire. You will learn in a later chapter how, as a result of the defeat of Germany in the World War (1914–1918), this and other territory was added to the British Empire.

In 1919, therefore, 100 years of empire-building in Africa were at an end, and Great Britain controlled an unbroken stretch of land from Egypt to Cape Town.

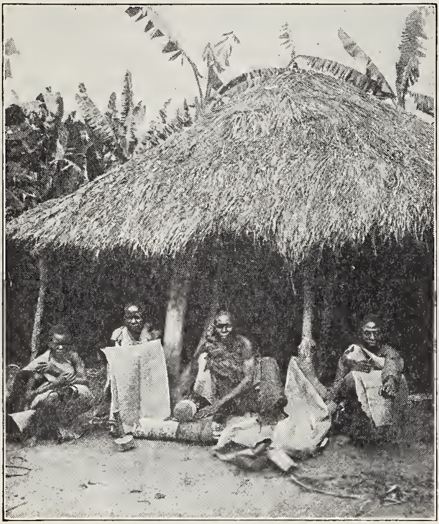


FIG. 66. A home in Uganda. The natives are proudly displaying pieces of cloth, which are the result of their craftsmanship

In many parts of this territory her engineers were mining gold, iron, copper, tin, and other metals, and diamonds. On the uplands British ranchers were raising great herds of sheep. On the fertile stretches of low land British farmers were raising wheat and other foodstuffs to help to feed England's hungry millions. In the north, in Egypt and the Anglo-Egyptian Sudan, Great Britain started irrigation projects on the river Nile. These made it possible to plant millions of acres of rich land in cotton. In Kenya Colony and the Anglo-Egyptian Sudan elephants were hunted for the ivory of their tusks. Villages, even good-sized towns, were appearing at a number of places in Africa.

The Cairo to Cape Town Railway

To bring the products of this great region out to the coast for shipment to England and other countries, the English colonizers saw the need for railroads. So they planned a great railway which should run through British territory all the way from Cairo to Cape Town. They not only planned it, but they began work on it. This work was carried on so rapidly that already several thousand miles of track are in use. This railroad is a tremendous undertaking. In some places it crosses the east-

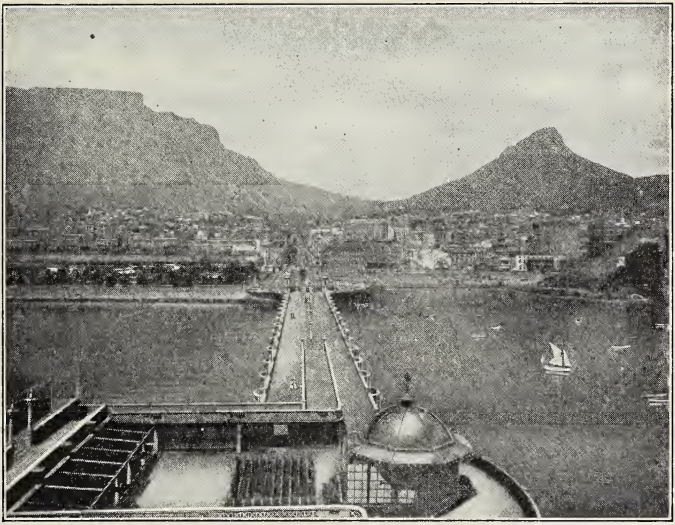


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FIG. 67. Cape Town

ern part of the treacherous Sahara Desert. In other places it passes through thick jungles in central Africa, the home of many wild beasts and savage black men.

This, then, is merely a brief outline of the manner in which Great Britain made nearly a third of Africa a part of her Empire. In this huge region are many kinds of land, many kinds of climate, and many kinds of people.

OUTPOSTS OF THE BRITISH EMPIRE IN THE SOUTH SEAS

During the very years that some daring and ambitious British adventurers had gone into South Africa to settle, others were building colonies in far-off Australia and New Zealand. Far-off, indeed! About 13,000 miles by sea from London to Auckland, the chief port of New Zealand! If you put a diameter through the globe from London, it comes out near Auckland.

Australia and New Zealand, then, are truly the "outposts" of the British Empire — "down under" the equator, isolated from the mother country on the other side of the earth. A hundred and fifty years ago there were no Europeans at all living in either of those places. Today there are 6,700,000 Australians and 1,500,000 New Zealanders. Although, like the Canadians and the South Africans, they really govern themselves, nevertheless they are, to use their own words, "more British than the British." Let us have a brief glance at these two dominions.

AUSTRALIA: BRITISH CIVILIZATION SOUTH OF THE EQUATOR

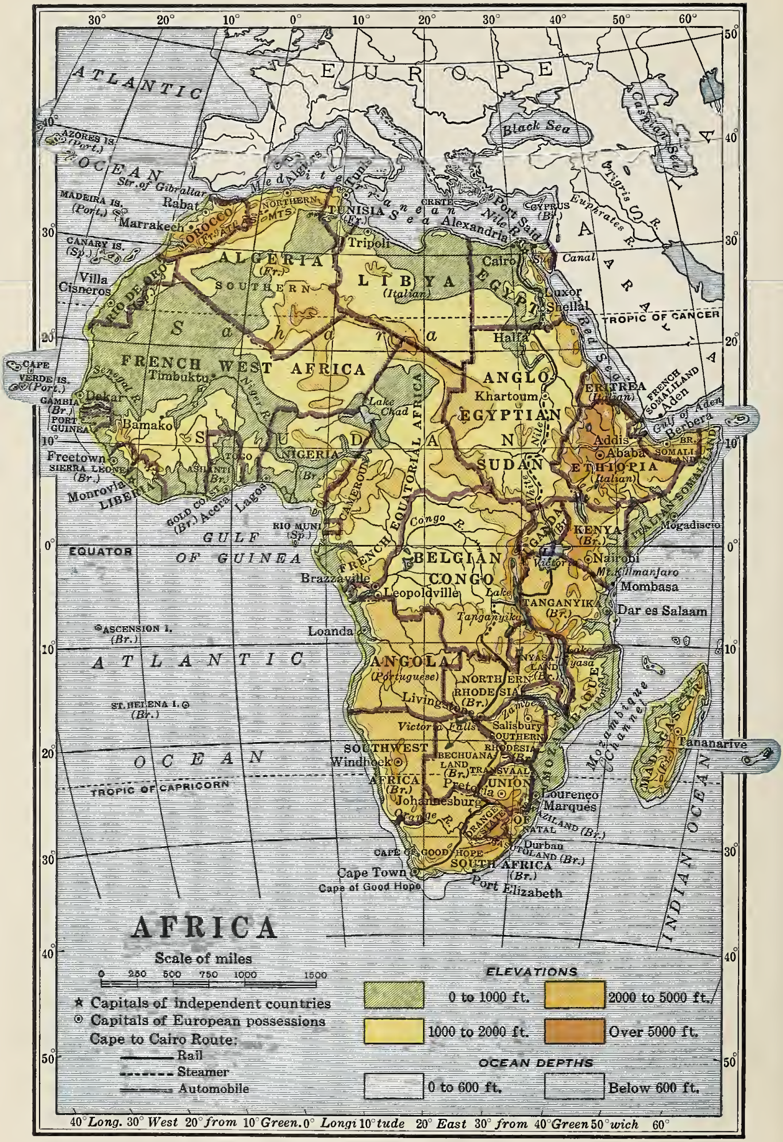
Its "geography"

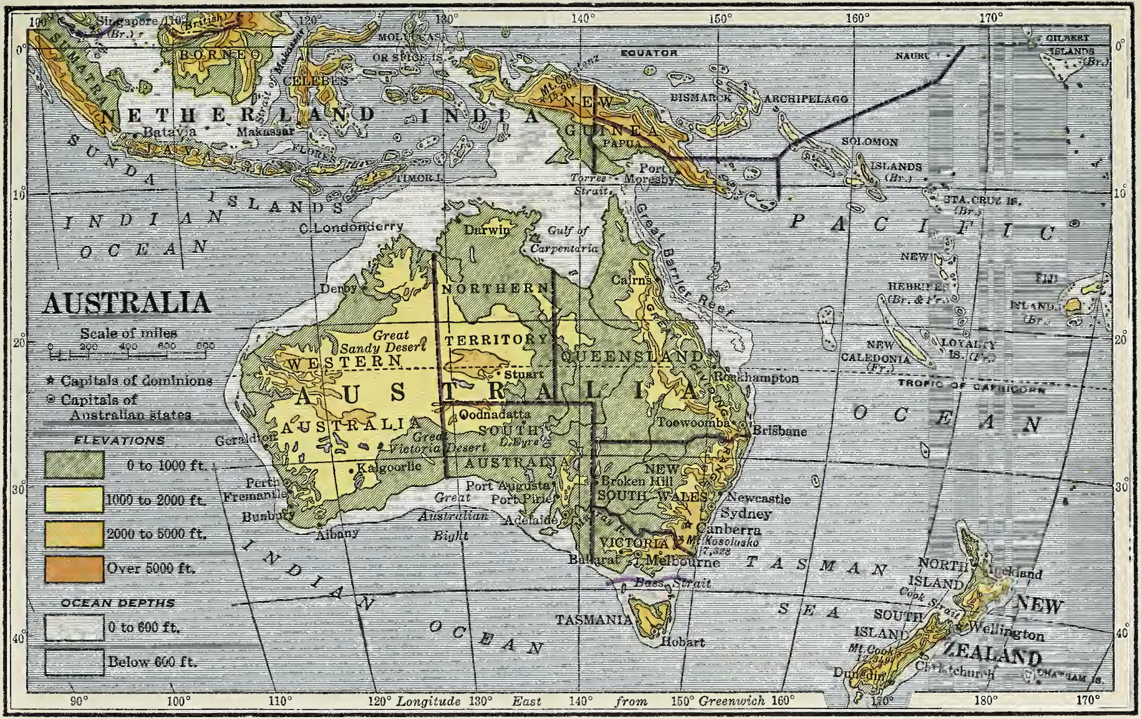
Australia is an enormous island 12,000 miles from Great Britain. It covers almost exactly the same area as does the United States of America — approximately 3,000,000 square miles. It stretches from 45° south latitude in Tasmania, a small island south of the mainland, to 11° south latitude in northern Queensland.

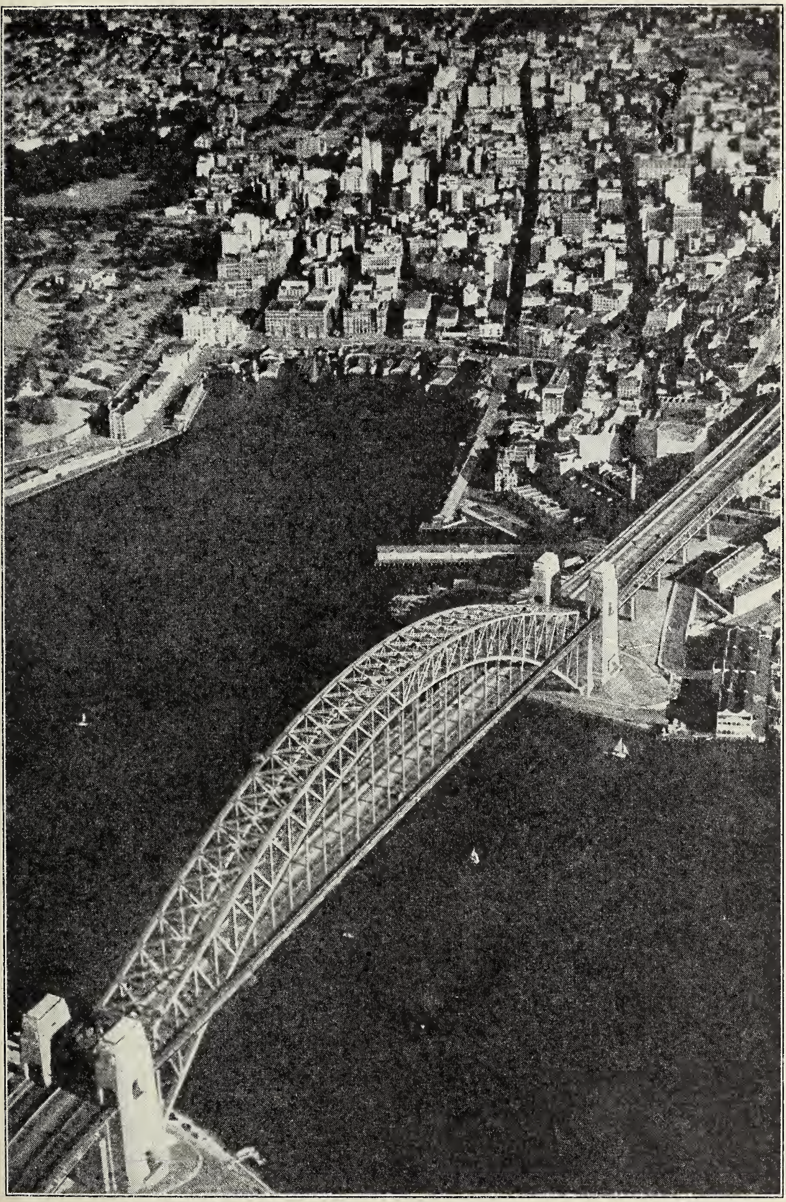
Most of Australia's 12,000-mile coast line is edged with a low fertile coastal strip, generally not more than 20 to 50 miles wide. Although there are very few river gaps along this rocky continental rim, there are a half dozen good harbors, including two of the most remarkable ones in the world — Sydney in New South Wales and Hobart in Tasmania. With the exception of this narrow coastal lowland, most of the land west of the 137° meridian is tableland. This tableland is from 1000 to 2000 feet high, rising in small interior areas to 3000 feet. It is a territory almost without rivers. East of the 137° meridian most of the land is fairly near sea level — not rising above 500 to 1000 feet, but broken constantly by ranges of hills and mountains.

Because of lack of rainfall 15 per cent of the land of Australia is totally useless; half of it, unfit for agriculture. The hillier coastal belts receive 30 to 40 inches of rain a year. The central mass is almost a rainless desert, most of it getting only 5 to 10 inches of rainfall a year. Australia, then, is a vast water-starved continent-island. It is little wonder that European explorers, sailing around Australia's coast in the 1600's and 1700's, were not attracted to it as a land for colonization.

This enormous territory, after 150 years of British colonization, has become a self-governing dominion of 6,700,000 "British" people, most of whom live crowded on the southeastern coastal


AFRICA
Scale of miles
0 250 500 750 1000 1500
★ Capitals of independent countries
⊙ Capitals of European possessions
Cape to Cairo Route:
Rail
Steamer
Automobile
ELEVATIONS
0 to 1000 ft.
1000 to 2000 ft.
2000 to 5000 ft.
Over 5000 ft.
OCEAN DEPTHS
0 to 600 ft.
Below 600 ft.
40° Long. 30° West 20° from 10° Green. 0° Longi 10° tude 20° East 30° from 40° Green 50° wich 60°
EUROPE
ATLANTIC OCEAN
AZORES IS. (Port.)
MADEIRA IS. (Port.)
CANARY IS. (Sp.)
Str. of Gibraltar
Rabat
Marrakech
MOROCCO (Fr.)
NORTHERN MTS.
Algiers
Tunis
TUNISIA (Fr.)
Mediterranean Sea
Tripoli
CRETE
CYPRUS (Br.)
Alexandria
Port Said
Nile R.
Suez Canal
Cairo
Black Sea
Caspian Sea
Tigris R.
Euphrates R.
ASIA
ARABIA
ALGERIA (Fr.)
SOUTHERN
Sahara
LIBYA (Italian)
EGYPT
Luxor
Shellal
Halfa
TROPIC OF CANCER
Red Sea
RIO DE ORO (Sp.)
Villa Cisneros
CAPE VERDE IS. (Port.)
FRENCH WEST AFRICA
Timbuktu
Senegal R.
Niger R.
GAMBIA (Br.)
Dakar
PORT. GUINEA
Bamako
Freetown
SIERRA LEONE (Br.)
Monrovia
LIBERIA
ASHANTI (Br.)
TOGO
GOLD COAST (Br.)
Accra
Lagos
NIGERIA (Br.)
Sudan
Lake Chad
CAMEROUN
FRENCH EQUATORIAL AFRICA
ANGLO-EGYPTIAN SUDAN
Khartoum
White Nile
ERITREA (Italian)
FRENCH SOMALILAND
Aden
Gulf of Aden
Berbera
BR. SOMALILAND
Addis Ababa
ETHIOPIA (Italian)
ITALIAN SOMALILAND
Mogadiscio
KENYA (Br.)
Nairobi
Mt. Kilimanjaro
Mombasa
UGANDA (Br.)
L. Victoria
RIO MUNI (Sp.)
GULF OF GUINEA
EQUATOR
Congo R.
BELGIAN CONGO
Brazzaville
Leopoldville
Lake Tanganyika
TANGANYIKA (Br.)
Dar es Salaam
ASCENSION I. (Br.)
Loanda
ATLANTIC
ANGOLA (Portuguese)
NORTHERN RHODESIA (Br.)
NYASALAND (Br.)
Lake Nyasa
MOZAMBIQUE (Port.)
Mozambique Channel
MADAGASCAR (Fr.)
Tananarive
Livingstone
Zambezi R.
Victoria Falls
Salisbury
SOUTHERN RHODESIA (Br.)
ST. HELENA I. (Br.)
OCEAN
TROPIC OF CAPRICORN
SOUTHWEST AFRICA (Br.)
Windhoek
BECHUANALAND (Br.)
TRANSVAAL
Pretoria
Johannesburg
UNION OF SOUTH AFRICA (Br.)
Lourenço Marques
SWAZILAND (Br.)
NATAL
Orange R.
ORANGE FREE STATE
BASUTOLAND (Br.)
Durban
CAPE OF GOOD HOPE
Cape Town
Cape of Good Hope
Port Elizabeth
INDIAN OCEAN


AUSTRALIA
Scale of miles
0 200 400 600 800
★ Capitals of dominions
⊙ Capitals of Australian states
ELEVATIONS
0 to 1000 ft.
1000 to 2000 ft.
2000 to 5000 ft.
Over 5000 ft.
OCEAN DEPTHS
0 to 600 ft.
Below 600 ft.
Singapore (Br.)
British
SUMATRA
BORNEO
Strait of Makassar
CELEBES
MOLUCCAS OR SPICE IS.
NETHERLAND INDIA
Batavia
Makassar
JAVA
FLORES
TIMOR I.
SUNDA ISLANDS
INDIAN OCEAN
EQUATOR
NEW GUINEA
Mt. Carstensz 15,964
PAPUA
Port Moresby
Torres Strait
BISMARCK ARCHIPELAGO
NAURU
GILBERT ISLANDS (Br.)
SOLOMON ISLANDS (Br.)
STA. CRUZ IS. (Br.)
PACIFIC OCEAN
NEW HEBRIDES (Br. & Fr.)
FIJI ISLANDS (Br.)
NEW CALEDONIA (Fr.)
LOYALTY IS. (Fr.)
TROPIC OF CAPRICORN
C. Londonderry
Darwin
Gulf of Carpentaria
Cairns
Great Barrier Reef
Derby
NORTHERN TERRITORY
QUEENSLAND
Great Sandy Desert
WESTERN AUSTRALIA
Stuart
AUSTRALIA
Rockhampton
Oodnadatta
SOUTH AUSTRALIA
L. Eyre
Great Victoria Desert
Geraldton
Kalgoorlie
Toowoomba
Brisbane
GREAT DIVIDING RANGE
Perth
Fremantle
Bunbury
Albany
Port Augusta
Port Pirie
Great Australian Bight
Adelaide
Murray R.
Broken Hill
NEW SOUTH WALES
Newcastle
Sydney
Canberra
Mt. Kosciusko 7,328
VICTORIA
Ballarat
Melbourne
Bass Strait
TASMANIA
Hobart
INDIAN OCEAN
TASMAN SEA
NORTH ISLAND
Auckland
Cook Strait
Wellington
SOUTH ISLAND
Mt. Cook 12,349
Christchurch
Dunedin
NEW ZEALAND
CHATHAM IS.
0°
10°
20°
30°
40°
90°
100°
110°
120°
130°
140°
150°
160°
170°
180°
Longitude East from Greenwich



Ewing Galloway

Fig. 68. Air view of Sydney, the oldest city in Australia. Most of the early buildings have disappeared, however, and a modern city has grown up around the beautiful harbor

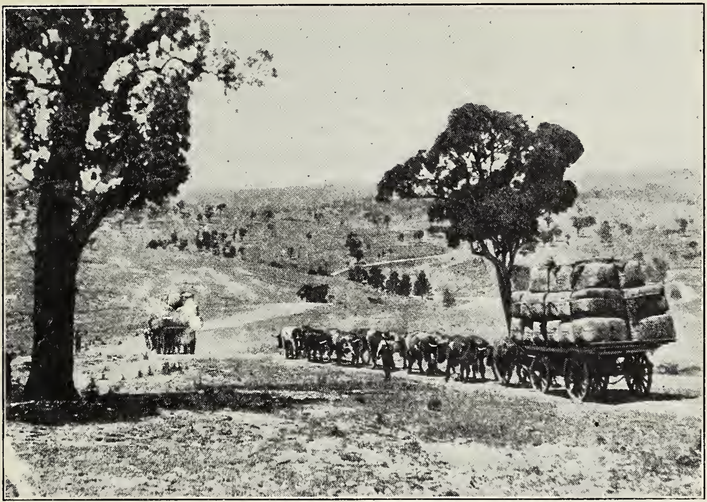
rim of the continent. We say "British" because actually 99 per cent of all the whites in Australia are descended from British ancestors; only 50,000 people there are not of the white race. In the leading commercial cities — Sydney, Melbourne, and, to a smaller extent, Adelaide, Brisbane, Perth, and Hobart — one sees all the marks of the great city. There are massive stone, steel, and concrete office and hotel buildings, bridges, factories, power plants, streetcars, autos and busses, broad avenues, beautiful parks, and modern beaches, but these cities are very few in number.

Australian history

It is hard to believe that only 150 years ago there were no Europeans at all in Australia. Its inhabitants at that time were 300,000 of the earth's most primitive nomad people, eking out a bare living by hunting. This great change in population was brought about through several fairly clear stages of development.

First, 1788–1809, Australia was a remote jail for England's convicts. While the western Europeans were making permanent farms and communities in the Americas, the British used Australia merely as a penitentiary. It was a place 12,000 miles from home on which they could dump their criminals with a regiment of soldiers to rule them. These rulers became officer-dictators who took large amounts of land, established full control over trade, and made the convicts do their work. But the idea of building permanent colonies in Australia grew so slowly that even in 1808 there were only 10,000 white people in all Australia; of the entire island only 12,000 acres of land were in use.

Second, 1809–1851, a few thousand sheep squatters in Australia built fortunes in the wool business. But even in the first years a few adventurous British immigrants were raising enough crops from the soil to make the colony self-supporting. Soon after that several of the most ambitious pioneers — such as Macarthur, Cox, and Marsden — persuaded the British government to give them large grants of land (all the land of Australia was supposed to be "crown" land that is, the property of the crown), on which they began to raise sheep. For two decades the wool industry grew very slowly. In 1792 there were only 105 sheep



Ewing Galloway

FIG. 69. Ox teams carrying wool to the railroad from the big sheep ranches in the interior of Australia. The value of Australia's wool is more than $20,000,000 yearly. What does the picture show about roads and methods of transportation?

on the entire continent, and as late as 1810 only 34,000. Within the next 40 years, however, a great wool industry was created with lightning speed. Daring explorers began to blaze the first trails inland from the southern and eastern rim of the continent. They proved one fact of great importance for Australia's development : some of the land and its climate were favorable for sheep-raising, even if much of it was not good for farming.

The flocks grew year by year. By 1842 the total number of sheep was 6,312,000; in 1851 it reached 17,500,000. Bigger and bigger became grants of land to those who would either farm the land or put sheep on it. By 1831 approximately 3,000,000 acres had been given away for these purposes. But much bigger became the acreage on which sheepherders "squatted," that is, took without purchase, rent payments, or grants from the government. Although the British government tried to prevent them, it was powerless to do so. Finally it leased enormous acreages to a few hundred sheep-owners for £10 ($50) a year. In addition it sold rich lands outright for $5 and less per acre. One man paid about $2000 for a piece that is now worth millions of dollars — a whole suburb of the city of Melbourne!

Third, the gold rush, 1851–1861. Australia, like the United States, like South Africa, like New Zealand, had its gold rush. The first discovery of gold in New South Wales in February, 1851, was made by Edward Hargreaves, a miner who returned to Australia from the California rush of 1849. Following that discovery tens of thousands of miners from all over the world left their homes and rushed to Australia. Thousands more went there to feed, house, and clothe the miners and to work in other occupations. As a result the population grew quickly, settling largely near the coast. Sydney, Brisbane, Melbourne, and Adelaide grew into large cities. Whereas in 1851 all Australia had only 437,000 people on a continent as large as the United States, ten years later it had 1,200,000. The number had tripled.

The mining of gold spurred on the development of every phase of life in the new colonies. It built up several small industries and caused the prices of goods and the wages of workers to be raised. It hastened the building of railways and telegraphs around the southern and eastern coast lands. It encouraged steamship travel which joined the continent with other parts of the world, especially with the mother country, Great Britain, upon which Australia was later to depend almost completely.

Thus the first 80 years of settlement established on the gigantic island a tiny population of 1,200,000 people contrasted with the 31,000,000 in the United States at the same date. These were divided into six jealous crown colonies, isolated 12,000 miles from "home," living on the sheep and the cow.

Fourth, economic expansion and unification as a self-governing union, 1861–1901. As was true in the United States, the last four decades of the nineteenth century in Australia became a period of swift expansion. Everything grew quickly, even though on a very small scale when compared with countries in the North Temperate Zone. In 1861 the five major cities contained 189,000 people; by 1901 the number had grown to 1,334,000 people — a sevenfold growth! (In 1933 they totaled 3,108,000.)

In 1861 there were practically no "factories" or "factory workers" worthy of the name; by 1901 there were 7600 real factories and 133,000 factory workers in New South Wales and

Victoria alone. In 1861 only 1,800,000 tons of freight were shipped through all of Australia's magnificent harbors; by 1901 tonnage had multiplied eightfold — to a total of 15,200,000 tons.

While this was happening the leaders were trying to put enough farmers on the land to make Australia a self-sufficient granary. By 1935, through irrigation, they were able to plant nearly a million acres of land with fruit trees. Because of better methods of cultivating wheat they were producing nearly enough grain to satisfy Australia's needs. Nevertheless, today, after 150 years of colonization, Australia's chief products are still wool, dairy products, and meat — not grains, fruits, and vegetables, and not manufactured goods. And what is very important to remember: the sale of these products depends upon the London market. To Great Britain goes 42 per cent of Australia's exports of wool; 44 per cent of its wheat exports, 85 per cent of its exports of beef, 97 per cent of its mutton and lamb exports, 90 per cent of its exports of butter. There is only *one* conclusion to draw from these facts: Australia is extremely dependent upon Great Britain as a market for her products.

In spite of the fact that the Australians were being encouraged to do more farming, the stations of the big sheep-owners became bigger and bigger. By 1883 the ownership of 8,000,000 acres of sheep land was in the hands of only 96 men; the average sheep station exceeded 80,000 acres!

Meanwhile the difficult political problem of unifying the states by the formation of a strong central government was becoming more and more important. The leaders knew that some kind of national union had to be organized to care for such matters as tariff laws, defense, immigration, rivers and harbors, lighthouses, post offices, transportation and communication.

Nevertheless for three quarters of a century the various states of Australia continued to govern themselves. One section would split off into several parts, and each one would insist on preserving its independence. Although, from 1840 on, British leaders "at home" urged them to create a central government, the six states (New South Wales, Victoria, Queensland, South Australia, Tasmania, and West Australia) refused to do it.

This refusal was partly due to the fact that the states themselves were isolated from one another. In the 1860's Sydney was a month's journey from Perth. There were no telegraphs between Sydney and Melbourne until 1861, and no railroads until 1883; Brisbane, in Queensland, had no rail connections with these cities until 1888. Even when rails were laid down, the "gauges" (widths between rails) were different in the different states, which prevented trains from passing from one state to another.

Thus the Australians continued to carry on until after 1890 as six sovereignties which suspected, even quarreled with, one another. The only times the states took even a tiny step toward co-operation were when the six premiers met for occasional discussions.

When the depression of the early 1890's came and grew worse and worse, the Australian people themselves, especially those living on state borders, lost patience with the way the politicians were handling their affairs. They called "Federation Conferences," and formed "Federation Leagues." In 1896 they held a "People's Convention"; in 1897–1898, a Constitutional Convention. The latter made for Australia a constitution which resembled very much the Constitution of the United States. By it an Australian national government was granted only certain definite powers (defense, tariff, mails, and so on). All other powers were reserved to the separate states. During the next two years, after much discussion and bargaining, a vote by the people in each state approved a revised draft. In July, 1900, the British Parliament and Queen Victoria approved it, and on January 1, 1901, the federal government of the Commonwealth of Australia was inaugurated.

NEW ZEALAND: MORE BRITISH CIVILIZATION SOUTH OF THE EQUATOR

While Australia was being settled by Englishmen and Scotchmen, 1000 miles away, across the rough Tasman Sea,[1] another outpost of British civilization was being built — New Zealand. We have space only to summarize the chief facts concerning it.

During the half century from 1792 to 1840 huge fortunes were made there by a few daring adventurers from England and America. They made these fortunes by whaling, sealing, and timber-trading. Then small companies of Scots and Englishmen began to enter the remote islands of "New Zealand" to make their homes. Ten years later (1850) there were six separate settlements on the two islands. Although they were little more than scenes of disappointment and distress to the colonizing companies in England, real beginnings in raising sheep and cattle were made. The wool trade grew rapidly in the period from 1850 to 1870; $13,000,000 worth of wool was exported in 1873.

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[1] Named for the Dutch explorer Abel Jansen Tasman (whence the names "Tasman Sea," "Tasmania," etc.), the first European to discover New Zealand (1642). The name "New Zealand" comes from the Dutch words *Nieuw Zeeland*, meaning "new sea land."

In 1857 came the discovery of gold, following the spectacular finds in the United States in 1849 and in Australia in 1851. Just as in Australia, the discovery of gold lured many people to the islands. As that happened, the demand for goods increased and the prices of them rose to greater heights. But by the late 1860's the gold boom ended. For the next half century the growing population struggled through a series of depressions, falling prices, lowered standards of living, borrowing, booms, growing debts, prosperity, and rising prices. Through all this New Zealand became more and more dependent upon "home" — that is, upon Great Britain — as a place to sell wool and meat and dairy products.

However, in spite of all the difficulties, the individual British colonist was building a new home in a far-distant land, on the same ideas that his ancestors in Great Britain had used for several hundred years.

In brief, then, what kind of "country" was set up on these distant islands? Let us note five things about it.

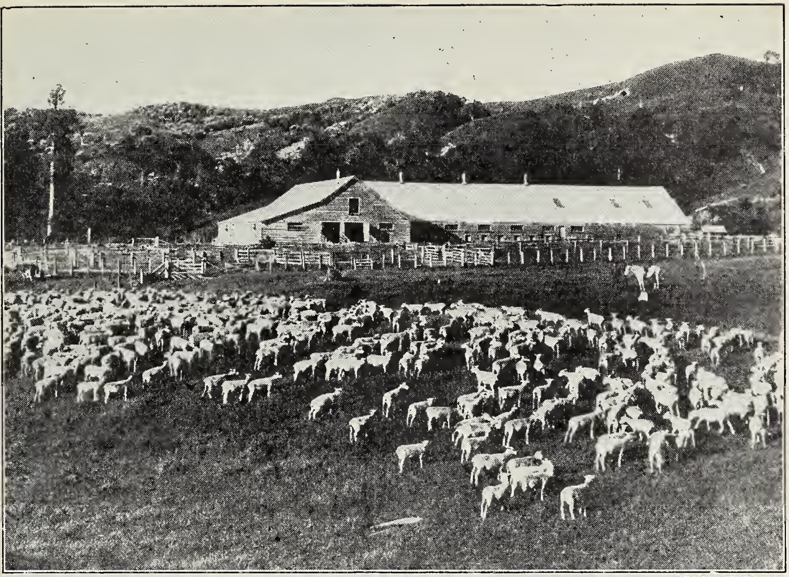
First. New Zealand is an isolated little country with only 104,000 square miles of land, located on two small mountain-islands between 34° and 47° south latitude. It is the "farthest south" modern civilization of the world. (Dunedin, a city of 80,000 people, is on the harbor from which Admiral Byrd sailed on his latest expedition to the South Pole.) To picture how far this country is from the great trade routes of the North Temperate Zone, note that it is at the opposite end of the diameter drawn through the earth from a point near Great Britain. Actually it is 13,000 sailing miles from "home," as the older New Zealanders still speak of Britain. It is thousands of freight-steamer miles from the rich trading centers and trade routes of the world: the western Europe to the United States path, the Mediterranean Sea to the Far East route, the North Pacific to the Japan and China route. Here, then, is true isolation.

Second. New Zealand is a farming country, depending almost entirely on two animals: the wool and meat of the sheep and the meat and dairy products of the cow. A traveler motoring for days through these two little islands becomes amazed at the astonishing courage of the Scot and the Englishman in building a modern civilization here in spite of the meager gifts of nature. Mountains and hills . . . hills and mountains . . . only a few broad level plains such as the "Canterbury Plains," where practically enough wheat is raised to supply the New Zealanders with bread stuffs. Hence New Zealand is, on the whole, a pastoral land for cows and sheep, from which the people get their meat, milk, wool, and dairy products.

Third. It is a country with almost no industries, such as the making of steel locomotives, engines, agricultural machinery, and the like. True, there are some textile factories and various other small plants in the four large cities of Auckland, Wellington, Christchurch, and Dunedin. Some iron and coal are found in New Zealand, some manganese and other natural resources — enough, perhaps, to meet the small demands of the tiny population (1,570,000 people). But the demand for these is so small that perhaps it is wiser for the New Zealanders to continue to import the larger manufactured products from "home."

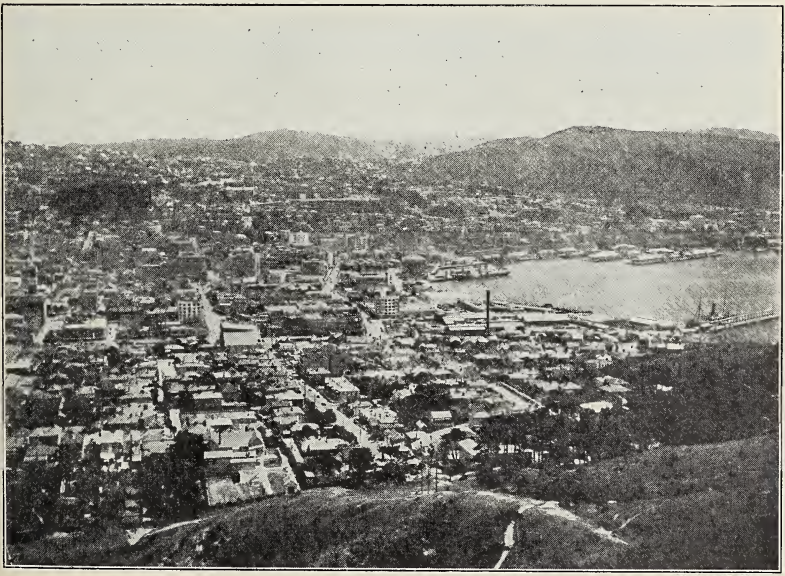
Fourth. Ninety-odd per cent of the people are of British ancestry. They, like the Australians, are proud of being British. One also hears frequent references to "home" and "going home," spoken by the middle-aged and older people, although rarely by the youngsters.

Fifth. New Zealand and Great Britain are interdependent. You already know that Great Britain is one of the world's greatest manufacturers and exporters of industrial products. You know also that her 46,000,000 people depend on the outside world for their food. New Zealand, settled by Great Britain since 1830, is now her "dairy farm." New Zealand furnishes two thirds of Great Britain's imports of cheese, one third of her imports of butter, and half of her imports of mutton and lamb.



Ewing Galloway

Fig. 70. A sheep station in the hills of New Zealand. The flock has just been sheared and the wool sent to one of the coast cities to be shipped to Great Britain



Ewing Galloway

Fig. 71. Wellington as seen from Mt. Victoria. Ocean steamships lie at the docks waiting to be loaded with New Zealand's wool, meat, and dairy products

Now let us see if New Zealand depends upon "home." *Of New Zealand's chief products, 40 per cent are sold in the London market!* If that market were destroyed, New Zealand would indeed have hard times.

New Zealand, then, is one of the self-governing dominions of the British Commonwealth of Nations — generally called the British Empire. Although she is practically independent, she still acknowledges the British overlordship. She permits, perhaps "welcomes," the residence of a British governor-general and his British officers. At all public or semipublic functions her people stand to sing two stanzas of "God save the King."

THE SELF-GOVERNING DOMINION OF CANADA

For our final example of the way in which Great Britain built her empire, let us turn to another continent, North America, and see how the British secured control over Canada. In the few remaining pages of this chapter we cannot tell the whole story. We can only mention a few outstanding facts.

In many ways the story of the settlement of Canada is very similar to that of our own country. Even before the English had set up colonies in New England, the French were trying to establish settlements to the north of them. As early as 1534 the French explorer Jacques Cartier entered what is now the Gulf of St. Lawrence and claimed the lands around it for France. Seventy-five years later settlements were actually started. In 1608 another Frenchman, Samuel de Champlain, founded Quebec, and in 1611 he built a fur-trading post at "Mont Royal," which was to become the city of Montreal. A few years later the French government made Champlain the first governor of "New France," as the possessions of the French in North America came to be called.

Once permanent settlements were made, the French began to explore the lakes and rivers in the wilderness to the west. In the late 1600's the explorer Jean Nicollet and the trader Louis Joliet explored the Great Lakes, and Jesuit priests — notably Father Marquette — sailed part way down the Mississippi River. Finally, in 1682, another French explorer, La Salle, traveled all the way down the Mississippi into the Gulf of Mexico.

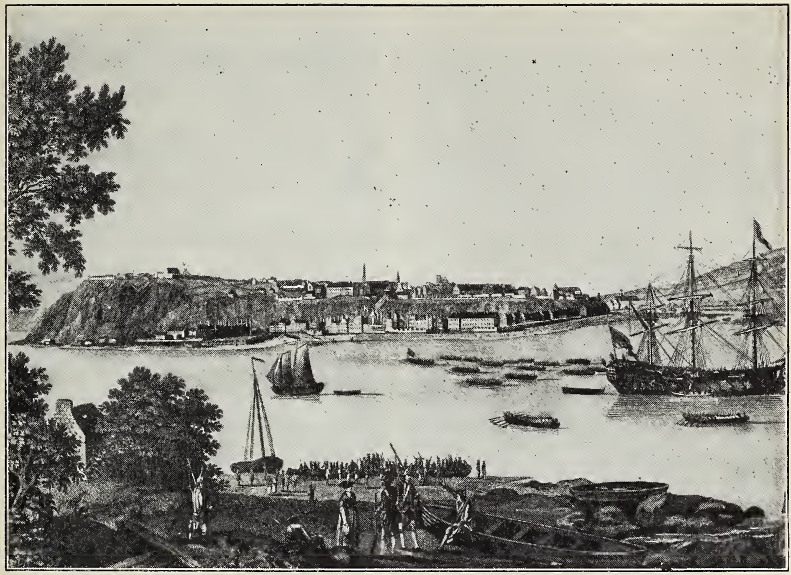
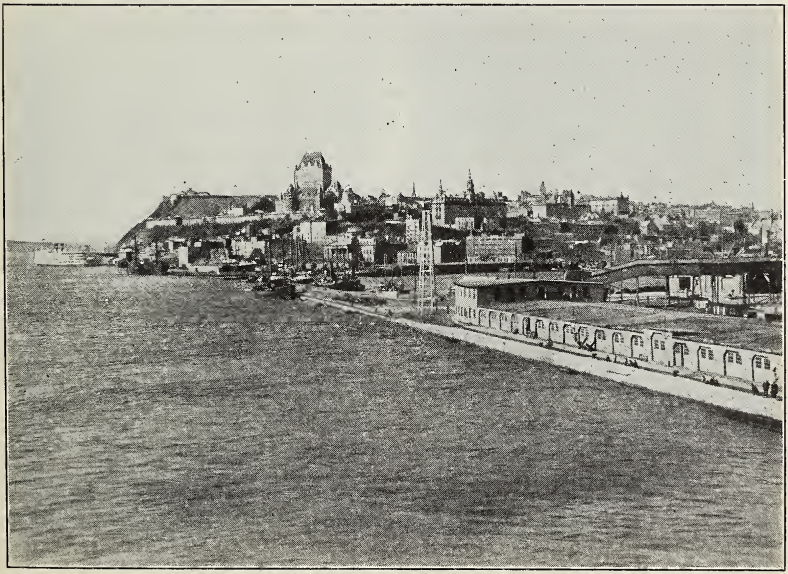


FIG. 72. Quebec as it looked in the early days



Ewing Galloway

FIG. 73. And as it looks today, some 300 years later

Thus by 1682 Frenchmen had claimed for France a great empire far to the west of the English colonies. This empire extended from Quebec and Montreal, on the St. Lawrence, westward to the region beyond the Great Lakes; then down the Mississippi Valley to the Gulf of Mexico. It reached from the Appalachians in the east to the Rockies in the west.

But while France was extending her possessions the British were pressing westward and northward toward them. There was bound to be a conflict; for both wanted the same lands — from the Atlantic coast to the Ohio and Mississippi valleys. In the 1700's there were many battles between them. First the British drove the French out of what is now the state of Maine; then, more slowly, the French were pushed out of New York and Pennsylvania. By 1750 it was clear that there could be no peace between Great Britain and France until one drove the other out of the New World. So the warfare went on. In 1759 the British captured Quebec, and in the next year they took Montreal.

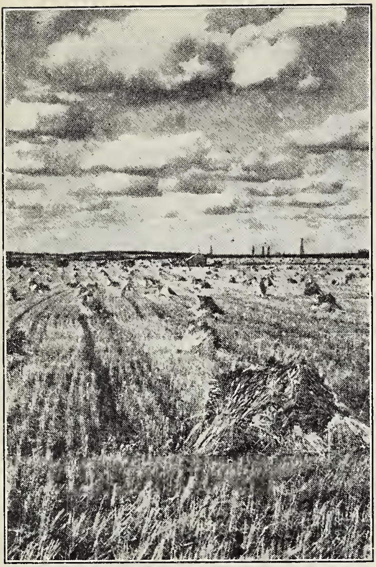
Meanwhile in Europe the chief nations of Europe were fighting the Seven Years' War (1756–1763). France, Austria, Russia, Sweden, Saxony, and Spain were fighting England and Prussia. France and her allies were defeated. In the treaty that ended the war, France gave all of "Canada" to the British.

Then came the American Revolution, 1775–1783, and the defeat of the British in our country. The treaty that was signed in 1783 set the boundary line between the United States and Canada. From that time on Great Britain controlled the territory that was to become the Dominion of Canada.

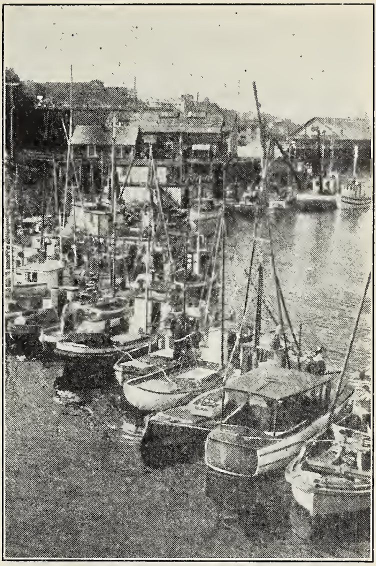
Canada, the third largest national territory in the world

When Canada was given to Great Britain in 1763, there were 60,000 French people and only 500 British living there. In the years that followed, the population grew slowly. By 1791 the total number had increased to about 150,000. About 100 years later (1901) there were 5,371,315 people in Canada. After 1900 the population increased more rapidly, reaching 8,787,949 in 1921 and 10,370,000 in 1937.

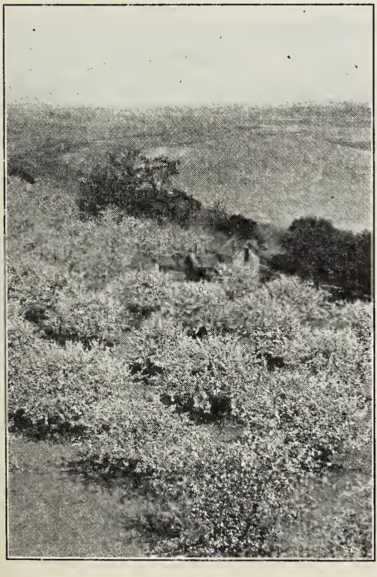
From what countries have these people come? As in the case of the immigrants to the United States, they have come from



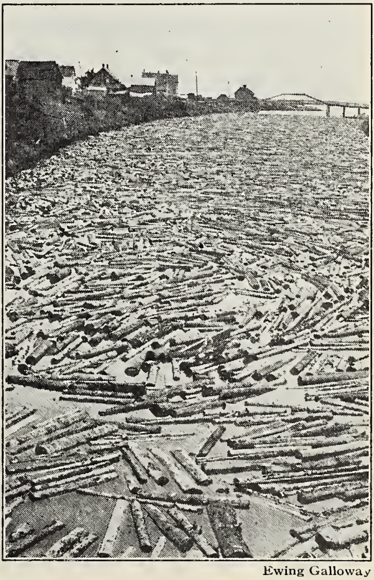
Food and fuel. A wheat field in Alberta with oil derricks in the background



Fishing boats lie in the harbors located on the Atlantic and Pacific coasts



An orchard in Nova Scotia. Ontario and the western provinces also have large fruit orchards



Ewing Galloway

Millions of logs each year are floated to pulp mills to be made into newsprint

Fig. 74. Five important industries of Canada

all over the world. However, more than three fifths of them came from Great Britain and France. Today there are about 3,500,000 of British ancestry, 2,500,000 of French ancestry, and more than 1,000,000 of Irish descent. The rest, in smaller numbers, have come from 25 other foreign countries.

This small population has brought about a new, serious problem in Canada. Remember that Canada includes all the land north of the United States except Alaska and Labrador (the latter belongs to Newfoundland, another British dominion) — in all, 3,700,000 square miles. So the problem facing the Canadian people is that they have too few people for the enormous area of land. In 1937 Canada had 7.2 per cent of the world's land, but only one half of one per cent of the world's population. Compare that with the United States, which in the same year had only 5.9 per cent of the world's land, but 6.5 per cent of the world's people.

Stated in another way: in land area Canada is the third largest country in the world (only Russia and China are larger). Yet Canada does not have as many people as New York State. It is about 40 times as large as the mother country, Great Britain, but has only one fourth as many people.

Where do most of the Canadians live? Nearly all of the 10,000,000-odd people live along the United States border; that is, in a narrow belt which runs 3000 miles across from east to west and seldom more than 400 miles northward. In this region are the wheat fields, all the large cities and manufacturing towns, and most of the railroads. To the north of this belt, where few people live, there are great stretches of forests, a region valuable for fur-trapping and for timber and containing rich deposits of minerals.

How do the people of Canada earn their living? Largely from farming. Canada produces a good share of the world's wheat, meat, dairy products, and fish. Her fur industry is still very important. But she is also an industrial country. In 1881 there were only $165,000,000 invested in manufacturing industries. By 1935 this had increased to $4,699,000,000. The lumber, wood pulp, coal, and textile industries are well developed.

The fact is that Canada is a rich country in resources and in beauty. She offers opportunities to trappers, miners, farmers, manufacturers, and people of other occupations. Yet so many people leave Canada every year to make their homes elsewhere that the total population grows very slowly. Canada wants her people to stay at home; she needs them to farm the fertile land, to develop her other resources, to do manufacturing, to build and use fine transportation and communication systems, — in short, to build a great nation. One of her most serious problems, therefore, is to keep Canadians in Canada.

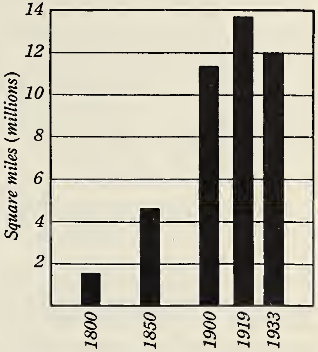


FIG. 75. Growth of the British Empire, 1800–1933

What is the position of Canada in the British Empire? Like Australia and New Zealand, it is a self-governing "dominion," practically an independent country. As the country grew, the people succeeded in getting a large amount of freedom from the British government. They set up a Federal government, one that in many ways is like our own American federal government. There are nine provinces and two territories, somewhat similar to our American states. But although the Canadians have for a long time run their own affairs, they have never made a serious attempt to cut all legal ties to the British Empire.

SUMMARIZING THE GROWTH OF THE BRITISH EMPIRE

If there were space in this book, we should study many other smaller possessions; for example, the Federated Malay States, parts of Borneo, and many scattered islands in all the oceans. In China, Great Britain still controls several ports and sections of land (see Chapter XXII). She has possessions in the West Indies. She owns the Bahama Islands and Bermuda. She controls land in Central America and in South America.

The map of the British Empire (figure 53) shows that its islands stretch around the world. Why did Great Britain want them? Chiefly because they provide convenient places where her vessels can stop for repairs and for coal, water, and other supplies.

The rapid growth of the British Empire is summed up in figure 75. In 1800 it contained 1,500,000 square miles of territory. In 1919, at the close of the World War, it included more than 13,000,000 square miles. Today it controls about 12,000,000 square miles. In 1800 the Empire had 2 per cent of the world's area, in 1919 it had about 25 per cent, and today it has about 20 per cent. One fifth of the land area and nearly one fourth of the people of the world are now a part of the British Empire.

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UNIT III

FRANCE: BOTH FARMER AND MANUFACTURER, A LEADING INDUSTRIAL NATION, AND THE WORLD'S SECOND LARGEST EMPIRE

There are three large industrial countries in Europe — Great Britain, France, and Germany. In the nineteenth century each of these countries, like the United States, adopted machine manufacturing. Each of them built up trade and an empire in other parts of the world.

In Chapters III–VI we have learned how England changed from a little country of manors to a huge industrial empire including nearly one fifth of the land and one fourth of the people of the earth. Now in Unit III we shall find out what happened to France while England was doing this.

In Chapter VII we shall learn important differences between France and Great Britain — differences in the amount of land, differences in the way in which the people got a living before the Industrial Revolution, and differences in the way in which they work and live today. We shall try to understand how the French live, by noting the extent to which they have taken up manufacturing or have remained on the land as farmers. We shall find out how their climate, soil, and natural resources determine the way in which they live, that is, how these factors influence their standard of living. *We shall compare this standard of living with that of the British and the American people.*

In Chapter VIII we shall study how it happened that France, like Great Britain, acquired great amounts of land in other parts of the world. She too built a great world empire, which includes nearly one twelfth of the land area of the earth. We shall see in this story whether the trade of the French business men had anything to do with the building of the empire. We shall learn whether the French people wanted the empire, and what they get out of it today.

When we have completed the work of Chapters VII and VIII, we shall have studied something of the history and also the present ways of living of three countries — the United States, Great Britain, and France. The people of these countries, together with the people of their possessions, occupy approximately two fifths of the entire earth.

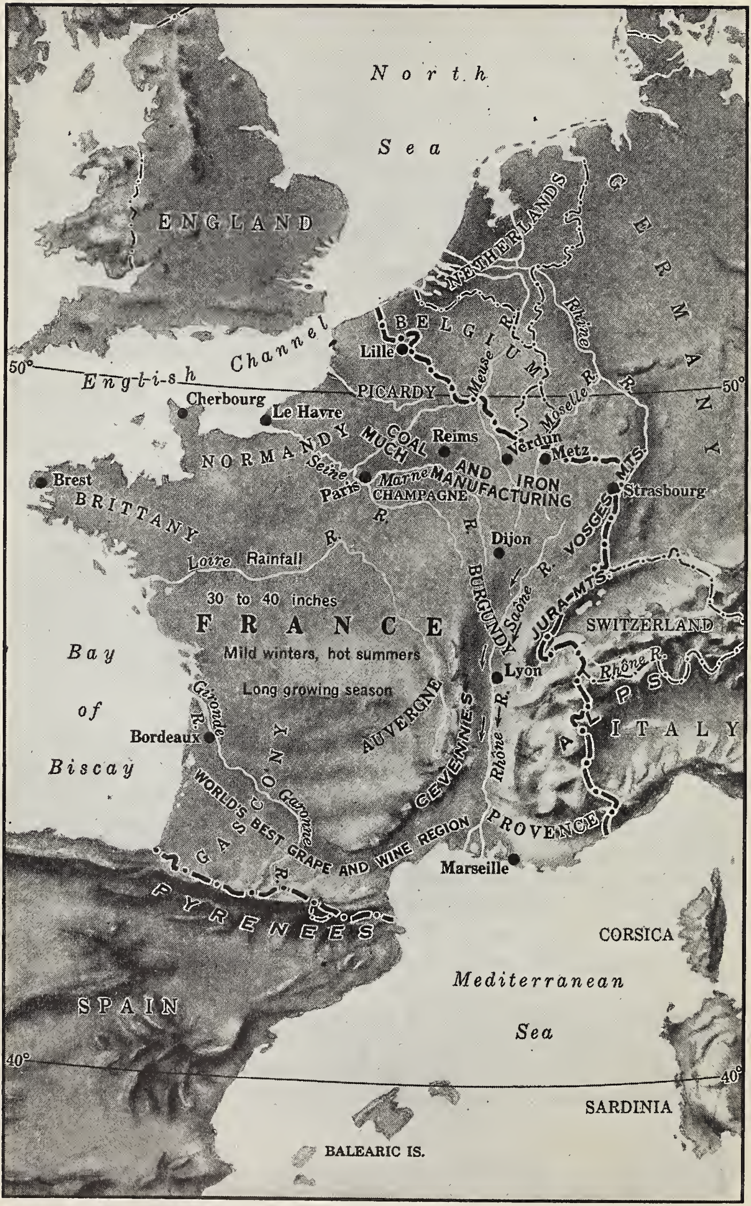
North Sea
ENGLAND
NETHERLANDS
GERMANY
BELGIUM
Lille
English Channel
50°
PICARDY
Meuse R.
Rhine
Moselle R.
Cherbourg
Le Havre
NORMANDY
MUCH COAL AND IRON MANUFACTURING
Reims
Verdun
Metz
Brest
Seine
Paris
Marne R.
CHAMPAGNE
Strasbourg
BRITTANY
VOSGES MTS.
Dijon
Loire R.
Rainfall 30 to 40 inches
BURGUNDY
Saône R.
JURA MTS.
FRANCE
Mild winters, hot summers
Long growing season
SWITZERLAND
Lyon
Rhône R.
ALPS
ITALY
Bay of Biscay
Gironde R.
Bordeaux
AUVERGNE
CEVENNES
GASCONY
WORLD'S BEST GRAPE AND WINE REGION
Garonne R.
PROVENCE
Marseille
PYRENEES
CORSICA
Mediterranean Sea
SPAIN
40°
SARDINIA
BALEARIC IS.

FIG. 76. France also has its regions. Can you tell how they differ?

CHAPTER VII

FRANCE: A COUNTRY OF AGRICULTURE AND MANUFACTURING

The story of the descendants of Johanis Lafarque, who lived on the same plot of ground for 1160 years

Back in the days of Charlemagne (800 A.D.) a lonely peasant, Johanis Lafarque, staked out a farm north of the present city of Toulouse. He was an energetic, hard-working man. With crude implements he cultivated his plot of ground and made his living. When he died he left his farm to his children.

It is the practice of the French government to give a special decoration to all farmers whose families have tilled the same plot of ground for three or more centuries. The Lafarque family heads the list among such farmers of France because it has been living for more than 1160 years on the original land acquired by Johanis Lafarque in 772. So, in 1924, the French minister of agriculture conferred upon Pierre Lafarque, a descendant of Johanis, this special honor.

"Surely it is very hard sometimes," said Pierre Lafarque in telling of his life on the 1160-year-old estate; "but here the earth is generous." As he spoke the old man proudly pointed out to his guest the 25 acres of land planted with wheat and grapevines. . . .

In the large dining room of Pierre's house are to be seen beautiful cupboards and priceless wardrobes, heirlooms carefully handed down from generation to generation.

"Why, certainly, monsieur," said Mme. Lafarque to a guest, "I still spin." And this wise woman of a wise race added, "I have never had to buy any sheets since I set up housekeeping."

So, through the centuries, French peasants have clung, often painfully, to the same little pieces of soil. They are hard-working men and women who sow their crops in the spring, gather them in the fall, and go to church on Sunday. When the season is a

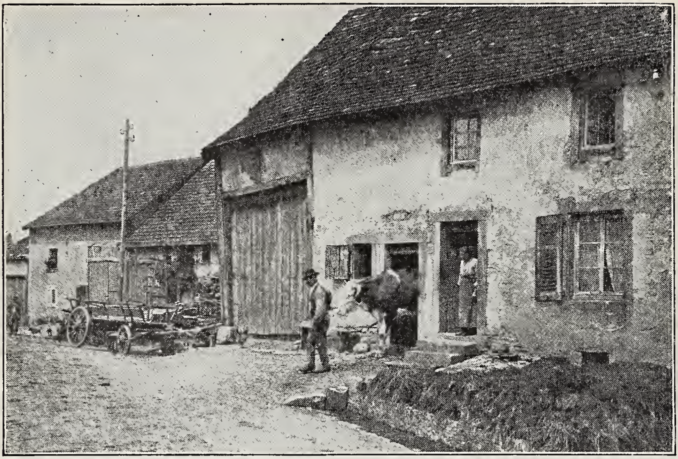

FIG. 77. A typical small French farmhouse. The house and barn are under one roof. To reach his fields the farmer often has to walk a mile or more

good one, they, unlike the American farmers, do not spend their extra money on Fords and radios; instead they buy a pig or a piece of new machinery.[1]

Perhaps you are a little surprised at this description of the life of a French farmer. You may have thought that France, like Great Britain and the United States, is a powerful industrial nation.

France is indeed a powerful country, with a great army and the second largest empire in the world. She has long played a leading part in world history. Today she too trades with the world, just as do the United States and Great Britain. But the development of France from the days of long ago has been different from that of Great Britain or of the United States.

The French people, you see, have always loved the land. Many families, like the Lafarques, have lived on the same plots of ground for hundreds of years. The land is dear to them, and they enjoy cultivating it. Thus farming is a very important part of French life.

But machines and factories and coal and iron are beginning to play an important part too. In this chapter we shall see a bit of life in the old France and how the new ways of living developed.

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[1] Adapted from Diana Rice's "Ancients of the Land," in the *New York Times Magazine* for January 20, 1924.

How Large is France?

Before we learn much about what has taken place in France, we should have some idea of the size of the country. When you look at figure 78 and compare the area of France with that of the United States, you will perhaps be a little astonished. For a powerful country with a great empire it is small indeed. Its area is 213,000 square miles. That is only about 50,000 square miles larger than California. But for such a small area France is the home of many people — totaling nearly 42,000,000.

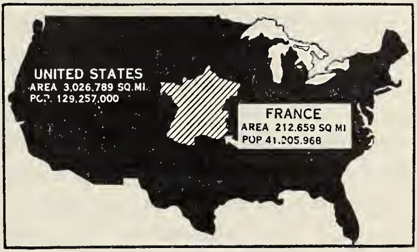


Fig. 78. How do France and the United States compare in area and population?

In your study of France keep in mind too that it is more than twice as large as Great Britain and has almost as many people.

Several Important Things about the Climate of France

You have already learned that the temperature of Great Britain is mild and the rainfall plentiful because of the Gulf Stream and the westerly winds. These two factors cause certain regions of France to have somewhat the same kind of climate. After the westerly winds blow across the Atlantic Ocean and become filled with moisture, they drop rain on France. They not only bring rain but they warm the land as well.

France extends from 42° to 52° north latitude. Stretching over a distance of 600 miles north and south, there is almost every kind of climate. In the west in Normandy and Brittany the summers are mild — not too hot. From 30 to 40 inches of rain fall there, and this is well scattered through the year. In the south in Gascony, Auvergne, and Provence, and on the higher plateau in the central part of the country, the summers are fairly warm and dry. Most of France gets very little snow, although on the tops of the Alps and the Pyrenees snow can be seen throughout much of the year.

Thus, on the whole, nature has been kind to the people of France in giving them mild temperatures the year round. It has given them neither too little rain nor too much, but just enough to grow many fine crops. These are conditions which helped to determine that most of the people of France would be farmers.

Much of France is excellent farming country, and crops are grown to fit the climate and the soil. For example, because oats can be grown in cooler regions, the French farmers in the cool north raise this crop. Corn grows in a warm, moist climate; so the farmers of southwest France, who have that kind of climate, raise corn. In soil containing some gravel and in colder highlands rye can be grown, so large crops of this grain are being raised in the highlands on the coast of Brittany. In addition, wheat is a very important crop; in fact, France raises more wheat than any other country in all Europe except Russia.

There is a plateau, or highland, covering most of the middle, eastern, and northeastern parts of France. Much of this plateau is rough and its soil is poor. On the whole it is not good for the raising of grain. But plenty of grass grows there on which animals can feed. So thousands of cattle and sheep graze over most of this region.

You probably know that where many animals are raised, dairying is almost sure to be important. In the northern part of the plateau, especially, there are many dairy farms which produce such things as milk, butter, eggs, and cheese.

But the French people have not only been able to raise cereals, vegetables, and animals. Parts of the country have just the right climate and soil for raising grapes and therefore for the making of wine.

Grapes do not need much water; but they do need a soil with some gravel, and they also need sunshine and heat. Because these conditions are found in southern France the most important grape-raising region of the world is there.

The soil and the climate differ in each part of France, so the grape farmers of each region make their own famous special kinds of wine. The valley of the Gironde and Garonne rivers is the most famous of all these regions. In a region 60 miles wide and 90 miles long more than 5,000,000 gallons of fine wines are made each year.

Other sections of France have also become famous for wines, especially the section around the river Marne, and the province of Burgundy.

If a traveler were to go through almost any part of France, he would see beautiful and carefully cultivated farms. On the plateau he would see herds of cattle and sheep, and on the hills and in the villages he would find peasants tending their acres of grapevines.

All of this has been made possible because of nature's wonderful gifts to the French farmers: mild climate, plenty of rainfall, and good soil.

In 1750 Most of the People Lived a Life of Toil and Poverty

You have learned how England was changing in the 1700's. People were leaving the farms, and towns and cities were growing rapidly. Industries were developing, and machines were slowly replacing hand tools. In France, however, the story was a very different one.

If a French Rip Van Winkle had gone to sleep in the early 1500's and had suddenly awakened in 1750, he would have thought that he had slept merely overnight. Things would have looked very much the same. On the plains he would have seen farmers tilling their little farms with the same kind of wooden plows which he had used. He would have seen them working hard for a very poor living — just as he had worked.

Part of the land would be lying idle — resting. Small stacks of hay might be in sight. If they were, Rip would know that some cattle would be butchered in the autumn, for there would not be enough hay to feed them through the winter.

If the medieval Rip were to visit one of the villages nestling among the trees, he would find much the same kinds of houses as stood in his day. He would see people weaving about the same kinds of cloth on the same kinds of hand looms. Buying and selling would be going on in the same way. If a stranger finally told him the date, he would be unable to believe his ears. It would seem too much like his own time of, say, 1500. Things certainly had not changed much.

There were hundreds of little villages in France in 1750, and they were all much alike. Many of them were connected with some lord's estates, like those in England as early as 1160. The lord's houses were very splendid, but the village cottages were very poor. The small farms of the peasants could give them only a bare living.

Life for the peasants of France was very hard. Arthur Young, an English student of farming, estimated that in the 1700's the *French peasants paid four fifths of their small income in rent and taxes.* Imagine 80 per cent of a man's earnings going to his landlord, the Church, and the king's collectors! One wonders that the French farmer had anything at all for himself and his family.

Today it is hard for us to imagine how miserably those peasants must have lived. Even with an especially good harvest they were on the point of starvation. According to the old journals they often had to eat roots and herbs. They lived in one-room huts without floors or windows. They went to bed sometimes without supper, to shiver all night without enough covers over their straw beds. Most of the people of France were peasants, and the hardships of most of these peasants were great indeed.

The Artisans in the Few Towns Were Little Better Off

In the French towns of the 1700's lived craftsmen who made many different types of things. Some of the most skilled artisans of Europe lived in France. Historians tell us that in 1750 the cloth woven in France was plainly superior to that of England. One reason for this was that every weaver had to keep to a certain standard of excellence. There was a long list of rules and regulations made by the government that had to be followed by weavers. After the product had been completed, it was tested before it could be put on sale.

These requirements were hard on the craftsmen, but they resulted in careful work and fine products.

At that time also wealth was very unequally divided. A small number of nobles and clergy were very wealthy; but most of the craftsmen, like the peasants, were very poor and barely able to get a living.

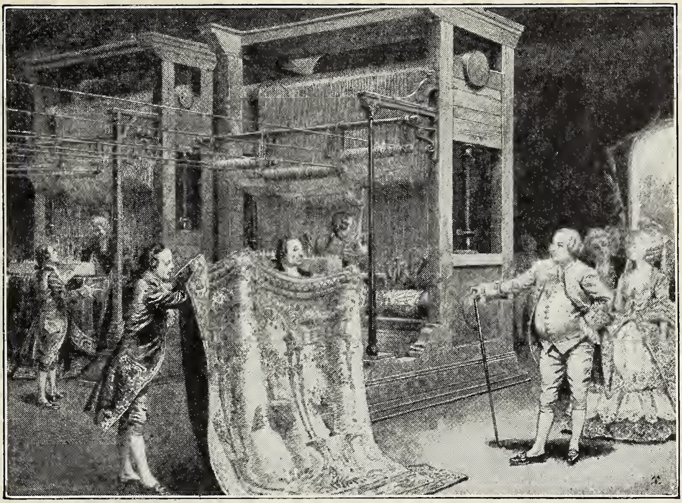


FIG. 79. The Gobelin factory in Paris was famous for its fine tapestries as early as the 1600's

THE EXTRAVAGANCES OF THE LUXURIOUS COURT LIFE

The kings of France in the 1700's had very gorgeous and fashionable courts. Perhaps never was there a more brilliant court life in Europe than during this period.

The kings had splendid palaces. They spent fortunes in decorating these with furniture and paintings. The courtiers wore rich clothing and jewels. King and court alike spent most of their lives looking for pleasure.

The nobles of the court and the clergy paid no taxes. They lived on money taken from the peasants, and the government did not ask them to pay anything.

As the 1700's went on the misery of the peasants increased, but the court became more luxurious. Taxes became heavier; and many of them were very unjust. There was a heavy land tax charged by the owner for allowing the peasants to cultivate the land. There was another tax still more unjust — the salt tax.

The nobles did not care how much the peasants were suffering because of the heavy tax burden; in fact, they did not seem to regard these people as really human, like themselves. They were having a very good time. "Why worry about the future?" they thought.

But the end was coming! The storm was gathering slowly. The people grew more and more restless. Finally the storm broke.

In 1789 a Revolution Spread All over France

At last the people of Paris became so dissatisfied with the way their country was being ruled that they suddenly rose up and fought their rulers openly. The Revolution was on! Street riots started. Public buildings were attacked, robbed, and destroyed. Mobs formed, and rioting became serious. The trouble soon became more than an outburst from discontented Paris workers. It spread like a great flood over France — a nation-wide revolution.

The king, the queen, many of the nobles and bishops, and their followers were beheaded. For years after 1789 the life of an aristocrat was far from safe. Palaces, prisons, and castles were robbed. Many of them were destroyed. The glorious court life with its extravagance was swept away almost overnight by a maddened people.

For several years the Revolution lasted. Then gradually the better-educated and more prosperous people took charge of local affairs. People slowly settled down to peace again.

What Did the French Revolution Do for the People of France?

The peasants wanted one thing, above all. They wanted to own their homes and their land and to cultivate this land for themselves and their families. They wanted to keep what they raised on their farms.

One of the first acts of the new democratic republic was to give every peasant a small piece of land. This was one of the most important changes brought about by the French Revolution. Most of the French people at heart were farmers who were proud of their soil. To give them land was the best thing that could be done for them. By 1865 half of the French farmers owned their own land. They felt that they were working for themselves, and they set about tending their land more carefully than ever. Larger crops were raised. For the first time the French farmers, freed of their heavy tax burden, became prosperous. The table above shows very clearly the new spirit that entered into farming.

PRODUCTION OF WHEAT AND POTATOES IN 1789 AND 1848

Year	Million Bushels of Wheat Grown	Million Bushels of Potatoes Grown
1789	93	5
1848	152	275

AFTER THE FRENCH REVOLUTION THE PEASANTS BEGAN TO RAISE NEW CROPS

Before 1800 few potatoes had been grown in France. Within a few years after that time this became one of the most important crops in the country. Frenchmen began to recognize that potatoes are essentially a poor man's crop. They can be grown easily and cheaply. They can be used as one of the chief articles of diet when wheat, barley, oats, and other cereals are expensive. Between 1789 and 1848 the amount of potatoes grown in France increased 55 times, from 5,000,000 bushels a year to 275,000,000 bushels.

The French also learned how to raise sugar beets. Before 1800 Europe had depended for its sugar upon sugar cane raised in the tropics. Then people learned that they could get sugar from beets, which will grow in the Temperate Zone.

When Napoleon was emperor of France, fifteen years after the French Revolution, he introduced the growing of sugar beets. The English leaders, who hated and feared Napoleon, made fun of this new sugar. A cartoonist of the day drew a funny picture of the little son of Napoleon with a beet root in his mouth. The child looked most unhappy. The nurses who were watching him said, "Suck, dear, suck; your father says it's sugar."

The English were a little hasty in making fun of the French sugar-beet industry, however. More and more people in France began to use beet sugar instead of cane sugar. And there was great profit for French farmers in the raising of sugar beets.

The increase since 1850 in the cultivation of sugar beets has been greater than that of any other important agricultural product of France. Today the sugar beet is one of the chief farm products.

France Also Became a Sheep-Raising Country

At about the same time that the new crops were being introduced many French farmers turned to sheep-raising. A very fine Spanish breed of sheep called the Merino was brought into France from Spain. Many flocks of sheep began to dot the French hillsides. Their shearings were used to feed the French looms, which before that time had used foreign wool. So another agricultural product was added to the growing list, and French farmers added to their prosperity.

Why Did French Industries Adopt Power Machinery So Slowly?

You remember that in England factories were becoming fairly numerous after 1800. This was not true in France. The French people were slow to start manufacturing with machinery. Why was that?

First, the French peasants did not care to leave their farms

At last the peasants were independent. They had always loved the work on their small plots of ground and now were even more satisfied to stay on them. The growing towns and cities did not attract them. Why should they move away? They had made their houses strong and neat. Their fields were trim and well kept. They enjoyed seeing things growing in the sun. They worked in the fields while the daylight lasted. In the evening they walked back together to their little village, which was perhaps a mile from the fields. All went to eat their simple evening meal. Then they would light their pipes and visit together. They were happy. What more did they want?

The Revolution, therefore, had brought them more than the ownership of land. It had brought them a feeling of *liberty*.

Second, war and revolution had made France very poor

During the 1700's France had fought long and costly wars with England and had been defeated. She got into debt. Then, in 1789, came the Revolution; and after that, Napoleon, who became the ruler of France, wanted to be emperor of all Europe. He carried on wars, which wore out the different countries, especially France. Napoleon was finally beaten at the battle of Waterloo in 1815 and was banished to the island of St. Helena. Later there were other revolutions and changes in government. All these things upset the country so greatly that it was years before her people recovered. France was so exhausted and made so poor by these events that it was some time before her people were able to think of buying machines and building factories to any great extent.

Third, France lacked a good coal supply

Throughout the early 1800's the French people were not concerned about lack of coal. Their ironmasters had been smelting iron with charcoal, as the English ironmasters had done. Since there was little iron made, there was no worry about cutting the forests for charcoal. The little coal that was used was imported from Sweden.

Coal Production in 1789, 1830, and 1860

Year	Amount of Coal Mined
1789	250,000 tons
1830	1,800,000 tons
1860	8,000,000 tons

Before the Revolution a few coal fields had been found in northern France. At Anzin a company was organized as early as 1717, but not much coal was mined. Later some of the best coal in France was found there.

The French fields were so hard to mine that between 1789 and 1830 coal production increased only slowly. However, it had multiplied over 7 times between those dates and 32 times between 1789 and 1860, as the table above shows.

When French manufacturers built factories after 1830, coal came into wider use. It was cheaper, however, to import coal than to develop the mines of France.

For these reasons there were almost no signs of an Industrial Revolution in France until 1830

About 1825 the first machines were brought over to France from England — 50 years after they had first appeared there. During the time that an increasing number of English spinners and weavers were tending machines run by steam engines, French craftsmen were still spinning by hand and using hand looms for weaving.

England had not been eager to share her inventions with the world, and she was particularly unwilling to let France have the right to use them. France was her bitterest rival, and English business men feared that France would capture some of their trade. It was not until 1825 that England permitted machines to be exported to other countries. However, even after the first machines appeared in France, the French people were slow to use them to any great extent. In 1850 much spinning and weaving was still being done in the homes on hand spinning wheels and looms. Even the new factories at Lille and Lyon were rather small. In most of them water power was used instead of steam.

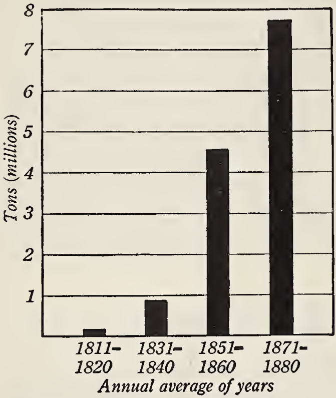


Fig. 80. Coal imported into France, 1811–1880

France had much iron, but her poor coal supply held back the manufacture of steel

The map of figure 76 reminds us that there are very valuable iron mines in Lorraine, on the northeast border of France; in fact, this iron field is one of the best in the world.

Before France began to use machines she was mining only a small quantity of iron. If you will compare her production of pig iron (see the table on page 159) with that of Great Britain (figure 39) for about the same period, you will note how much more the British were producing.

For 100 years after Great Britain began to use coal for smelting iron, the French ironmasters were still smelting with charcoal. About 1839 France had only 106 coke furnaces to 445 charcoal furnaces. As late as 1846 three fifths of the pig iron made in France came from small charcoal furnaces near the forests.

PRODUCTION OF PIG AND BAR IRON, 1789, 1830, AND 1850

Year	Number of Tons of Pig and Bar Iron
1789	69,000
1830	266,000
1850	416,000

OTHER INDUSTRIES, PARTICULARLY SPINNING AND WEAVING, CHANGED SLOWLY

The French weavers wove fine woolens, cottons, silks, and linens. These cloths were known everywhere for their fine quality.

In 1801 Lille had one cotton-spinning mill employing 90 hand workers. By 1810 there were 22 mills in the town, each employing from 60 to 70 persons. After 1825, however, hand weaving began slowly to be replaced by machine manufacturing. As machines were introduced, the manufacture of cotton and woolen goods increased enormously. At the same time Lille's trade increased steadily, and it became known as a growing manufacturing city.

Here is a comparison which tells the story of how trade in woolen goods increased. The estimated exports of France were

1788: $4,800,000 worth of woolen goods
1865: $79,200,000 worth of woolen goods

DID THE POPULATION IN FRANCE GROW RAPIDLY?

While Great Britain's population was growing rapidly after the Industrial Revolution, the population of France was growing very slowly. See the accompanying table. Through 50 years (1801–1851) it increased only a little more than 8,000,000. During the same period the population of Great Britain increased 10,000,000 and that of the United States about 17,900,000.

YEAR	POPULATION
1801	27,500,000
1831	32,060,000
1851	35,800,000

Even through the past 50 years, while the populations of Great Britain, the United States, Germany, and Japan have increased by great amounts, that of France has remained almost the same.

WAS FRANCE, LIKE ENGLAND, COMING TO DEPEND UPON THE OUTSIDE WORLD?

France was a fairly self-sufficient country until machine manufacturing became widespread. Her farmers produced most of the food needed by the city people as well as by themselves. Until 1850 France depended less on the outside world than did England or the United States.

Yearly Average Value of Goods Imported from Other Countries	
1820–1824	$77,600,000
1840–1844	$220,675,000

Nevertheless, as the table above shows, between 1820 and 1844 the amount of goods imported into France almost tripled. French imports, however, were very different from those of England. France did not need to buy food from her neighbors. In fact, she produced such quantities of foods like butter, poultry, fruits, and vegetables that the surplus of these could be exported from France.

One fourth of the people were engaged in manufacturing. In their work those people needed raw materials. They needed cotton, for example, from which to spin yarn, machines on which to weave cloth, and coal to run their factories. Thus France depended upon other parts of the world for cotton, machines, coal, and for some raw silk.

With the aid of these imported materials France was manufacturing fine cloth of all kinds. She was making garments, porcelain, furniture, and luxuries such as gloves, clocks, and perfumes. However, all the jobs involved in the making of these goods could not be performed by machines. Much hand work also was required.

So between 1800 and 1850 France remained an agricultural country in which craftsmanship was still important. There was a slow industrial development. Coal was being mined to some extent. Iron was being manufactured in large quantities. A few lines of railroad were being laid from Paris. Although the Industrial Revolution had been much delayed, it was gradually bringing about changes in many parts of France.

After 1850 Machine Industries Developed Rapidly in France

By 1850 the Industrial Revolution had taken a firm hold on France. Between 1852 and 1912 the number of machine factories in France increased tenfold (see figure 81). And in these water power was replaced by steam power to a great extent (see figure 82).

An example of the French steel industry

However, another more important change took place — a large coal and iron industry grew up in northern and eastern France. Observe the black areas on figure 51 near the border between France and Germany. This section of France is one of the richest iron regions of all Europe. When a traveler from the United States first sets eyes on it, he is likely to exclaim, "It looks just like Pittsburgh!" Like Pittsburgh it is, especially at the place called *Le Creusot* (the crucible, or melting-pot). The name sounds rather interesting; let us look at it more closely.

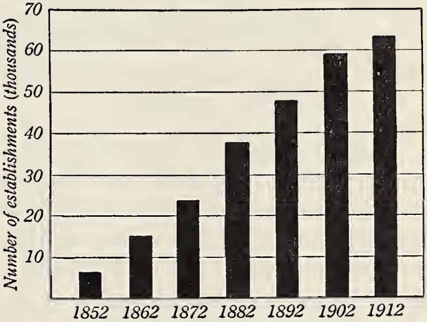


Fig. 81. Increase in the number of industrial establishments in France, 1852–1912

This section is well named. It is a deep bowl, like a mighty crucible, dropped in hills 80 miles northwest of Lyon. The hills guard it well, and under the highest of them is a rich treasure in iron. Seven hundred years ago iron was first found in this bowl-like region. A foundry was built in 1774. Later a glassworks appeared. This marked the birth of a new industry.

By 1782 the crucible was called the Royal Foundry. It was owned by the king, and at his command ironmasters turned out lovely lacy iron grills to ornament the palace at Versailles.

The French Revolution came in 1789. A few years later Napoleon became emperor, and Le Creusot was used to make iron guns for his army. During this time some of the old French industries died out. For a time after this it seemed as if the ironworks would go too. Rust and mold covered the great iron furnaces.

But two brothers, ironmasters of Lorraine, saved Le Creusot. When they learned of the condition of the Royal Foundry, they bought it from the government, and once more business began to flourish there as it had done in earlier times.

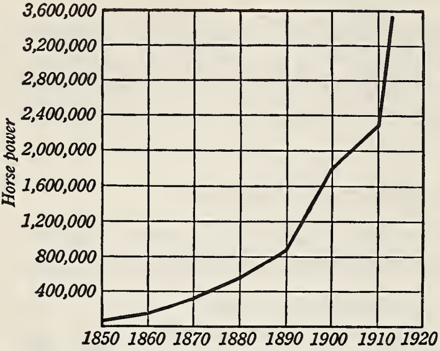


FIG. 82. Increase in steam power used in industry in France, 1850–1912

Eugene Schneider, one of the brothers, dreamed of making steam engines. He knew that because of engines Great Britain was becoming a wealthy manufacturing country. Schneider wanted France to follow her neighbor's example. He wanted steel steamships to sail under the French flag. He wanted railways to tie together all parts of France. But he knew that locomotives and trains had to be brought in from England.

Schneider believed that with Le Creusot it would be possible for France to manufacture her own machinery. In 1833 he made what is regarded as the first French locomotive. Later, steel rails came from the crucible; and before long new railways bound Le Creusot to the rest of France, especially to the mines near Lens and to those in the Saar and Ruhr districts. They were soon to bind together Paris and the other French cities, and Paris and the rest of Europe.

Since that time many locomotives have come from the crucible. Between 1919 and 1922 one new locomotive was being turned out each day.

If you have ever examined the inside of a locomotive, you know what a complicated thing it is. It is an accomplishment for any company to turn out a locomotive a day, but the high quality of Le Creusot's product makes this accomplishment even greater.

The work of making locomotives is enough in itself for one factory to handle. But Le Creusot is not satisfied with that alone. In addition it is a great white-hot crucible where iron ore is turned into pig iron, and pig iron into ingot steel. Then this steel is used not only for locomotives but also for steel railroad cars and coaches, motor trucks, taxicabs, tractors, and machinery. Even in our own industrial Pennsylvania there is no finer steel plant than this one in France.

Tons of Coal Mined		
Year	France	United States
1865	11,840,000	24,790,000
1885	19,510,000	112,180,000
1905	36,050,000	351,120,000
1913	45,020,000	569,950,000
1935	46,000,000	488,000,000

Though wonderful, Le Creusot is, of course, not the only steel plant in France. There are other great steel centers. In 1935 France produced one third as much steel as Great Britain, but only about one tenth as much as the United States.

Tons of Pig Iron Produced		
Year	France	United States
1865	1,290,000	832,000
1885	1,630,000	4,044,000
1905	3,077,000	22,992,000
1913	5,126,000	30,966,000
1935	3,631,000	31,629,000

France does mine large quantities of iron, however. After 1870 the increase was rapid. Just before the World War 20,000,000 tons of iron ore a year were being taken out of the ground in France.

Notice the two accompanying tables for coal and pig iron. They give you a very good idea of how iron manufacture depends

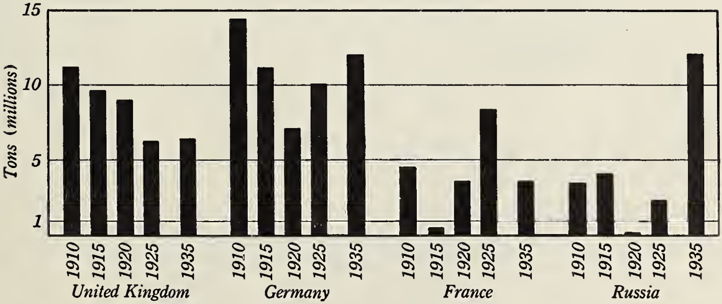


Fig. 83. Comparison of the production of pig iron in the United Kingdom, Germany, France, and Russia. 1910–1935

upon coal and of how difficult it is for a country which has little coal to become a great iron-refiner or a steel-manufacturer. There is a great increase shown in the figures of both tables. Note that as coal production rose in each country, there was a similar increase in iron production.

Now compare the figures of pig-iron production in France from 1910 to 1935 with those of the United Kingdom, Germany, and Russia (see figure 83). Note that in spite of France's small coal resources the amount of iron ore smelted in France increased steadily from 1915 to 1925, whereas the amount of pig iron produced in the United Kingdom and in Germany decreased, although, as figure 83 shows, since 1925 the amount produced in France has declined markedly in comparison with the other countries.

After 1850 Transportation Improved Rapidly

As France began to manufacture by machinery, rivers were deepened and docks were built. New canals were dug and old ones were deepened. Today the system of rivers and canals in France makes it possible for goods to be carried entirely by water from east to west and from north to south.

There are over 4000 miles of navigable rivers and over 3000 miles of canals in France. These canals are joined in such a way as to form a very complete network over France. The rivers are busy places, with thousands of freight boats of many kinds going up and down. The French, like the Germans, have made much better use of waterways than we Americans have. They have fewer automobiles and motor trucks, but they do use the rivers and canals. In this connection do not forget that water transportation is much cheaper than land transportation, especially for very heavy or very bulky merchandise.

If you look at the map of figure 159, you see that France also has many miles of railways. After 1850 the plan for a national system of railways extending from Paris was carried out. Every principal French city is connected by rail with Paris, and Paris in turn is connected with every European capital. Railway lines run out to Amsterdam, Berlin, Vienna, Rome, Madrid, and Constantinople.

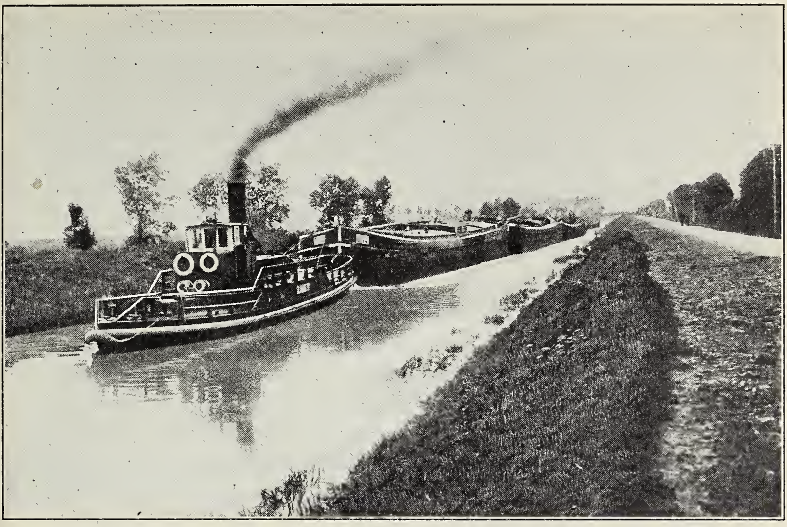
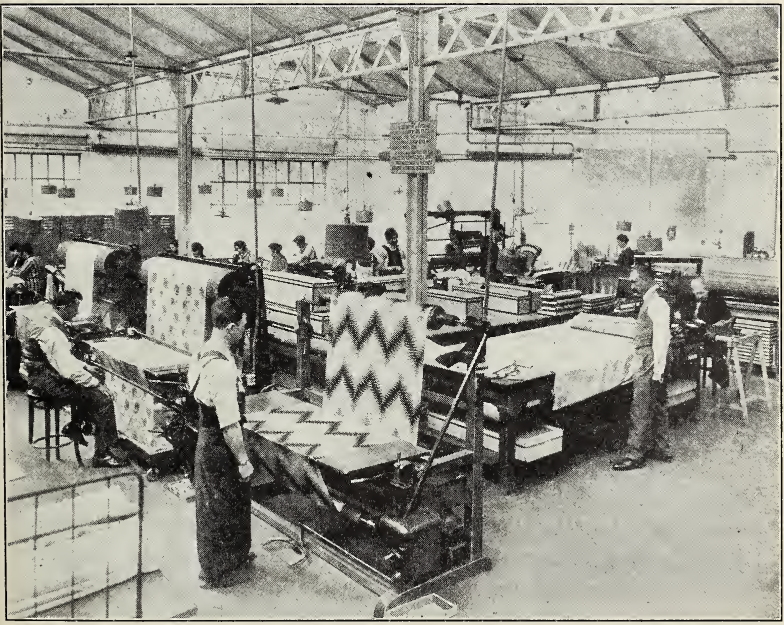


FIG. 84. Canals like this are to be found all over France. The total mileage of French canals is about as great as the distance from New York to San Francisco — 3000 miles



Publishers' Photo Service

FIG. 85. A silk factory in Lyon, one of the greatest silk-manufacturing cities of the world

Today France has a greater mileage than the United States in proportion to her area. In other words, although France is only about one fourteenth as large as our country, it has one tenth as many miles of railways. England, however, has more miles of railways in proportion to her size than France. Why do you think this is? Is it because France is less an industrial country than England is?

Towns and Cities Increased in Size

We have learned that wherever machine industries grow, transportation improves and cities become more thickly populated. We found that to be true in England. We found that it was true in the United States. Let us see whether it was also true in France.

Today in France the percentage of the total population living on the farms and cultivating the land is smaller than it was 65 years ago. The following figures show how the people of France gradually left the country for the cities:

1872: 70 per cent of the population was rural
(living in towns of less than 2000 people)
1937: 50 per cent of the population was rural

In the 65 years between 1872 and 1937 the percentage of people living on farms dropped 20 per cent. How do these proportions compare with the percentages for the United States during the same years?

Let us look at one example of how French cities grew with the coming of machines. Lyon, for many years the center of the silk industry, is a good illustration.

Lyon is beautifully situated. It is a city of bridges; for within its limits the Rhône and Saône rivers unite. The rivers run in the same direction for some three miles, enclosing a long tongue of land, before they join. On this narrow peninsula the business section of Lyon is built. To the north hills look down on Lyon. To the east stretches a broad rolling plain.

For many years Lyon has been a very important silk center. Today Milan, Italy, is its only rival on the Continent. For many years, however, Lyon wanted to develop other occupations for its people; therefore metalworking was encouraged, and today factories turn out many kinds of metal products. The largest automobile factory in France is in Lyon. In addition there are great shops for the repair and construction of railroad cars and locomotives. At the present time Lyon is a busy industrial city.

"The one thing Lyon lacks," one of its mayors once said, "is a good harbor." In rainy seasons boats can go up the river Rhône from the Mediterranean at least as far as Lyon. However, the Rhône is a somewhat uncertain river. In the spring it floods, so that its dikes can barely hold the water in check. During the rest of the year it sinks very low and becomes so shallow that boats can hardly travel on it.

Lyon plans to remedy that defect, however. A large harbor and many docks are planned to take care of the vast amount of shipping. It will take careful engineering to complete them.

DID THE INDUSTRIAL REVOLUTION CHANGE AGRICULTURE IN FRANCE?

We have said a great deal about agriculture in France, but we have mentioned only hand farming. What about the use of machines in agriculture?

Today the French peasants, like the farmers of our own country, raise a great deal of wheat, oats, rye, barley, and corn. Throughout France one sees mile after mile of well-kept wheat farms; in fact, one fourth of the farm land of France is sown to wheat. Many kinds of machines have been invented to help in the farming of such crops.

NUMBER OF FARM MACHINES USED IN ONE DISTRICT OF FRANCE

Year	Mowing Machines	Reapers	Reapers and Binders
1892 . . .	450	180	60
1908 . . .	15,000	25,000	1,200

In the United States, as we have learned, there was a great change in farming when machines and engines were introduced about 1850. On the large farms of the Middle West tractors are harnessed to plows, to harrows, to planters, to cultivators, and to threshers. Thus the great grain crops of our country are produced.

It was not until after 1890, however, that French farmers began to use machines. After that time planting, cultivating, and harvesting machines were introduced. Many farmers abandoned their old plows, sickles, scythes, and flails for the labor-saving machines. The table on page 167 shows how the number of farm machines increased between 1892 and 1908 in one district of France.

Many of the crops of France must be raised by hand

To get his living from the soil, each French peasant must obtain as good a crop as he can from his little area of land. There are many truck gardens where a great variety of vegetables and fruits is grown. This kind of farming does not need machinery, but it does need constant care and much handwork.

The raising of grapes is a good example of one of the most important farm industries of France. France is one of the greatest wine-producing and wine-drinking countries in the world. The southern and eastern coast regions are the best grape districts, although there are vineyards almost everywhere.

Cultivating grapevines requires a special kind of farming. The vines have to be carefully trained by hand. When the crop is ripe, the grapes are picked. They are carried in great baskets to vats, where the juice is squeezed from them into barrels. These are stored away until the wine is ready. A French peasant can live very well without much water or meat, but without wine — never!

In old times people pressed the juice from the grapes by stamping on them, and this old method is still used by peasants who make their own wine. There are also factories where the juice is pressed from the grapes by great machines.

For years before refrigeration was used gardeners had to live near the city to which they sent their fresh foods. They had to be near the public market where they sold their fruits and vegetables. When railways and automobiles and refrigeration became common, it was possible to send these foods long distances. Wealthy people all over Europe were eager to buy French garden truck. From Brittany, in western France, fresh vegetables can now be carried to Berlin, Geneva, Amsterdam, and Bruges. Strawberries, prunes, apples, and other fruits from the Alpine section of eastern France are shipped all over Europe and even to the United States.

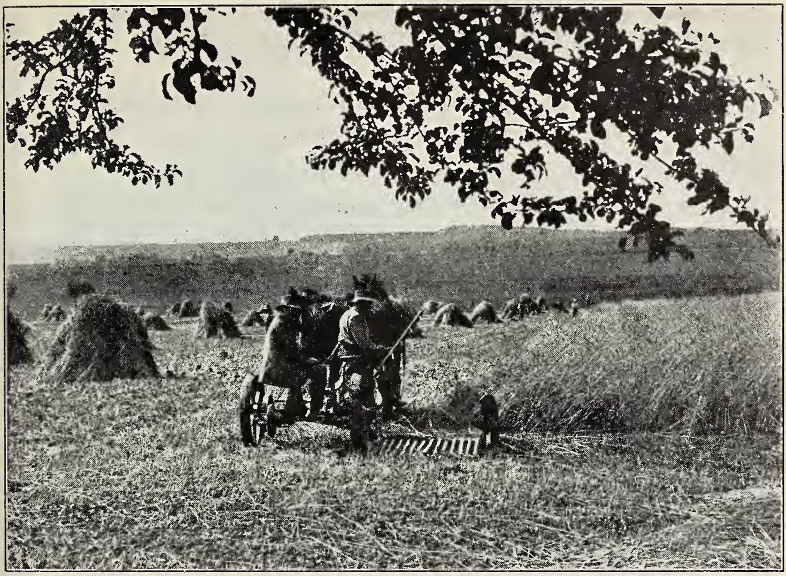
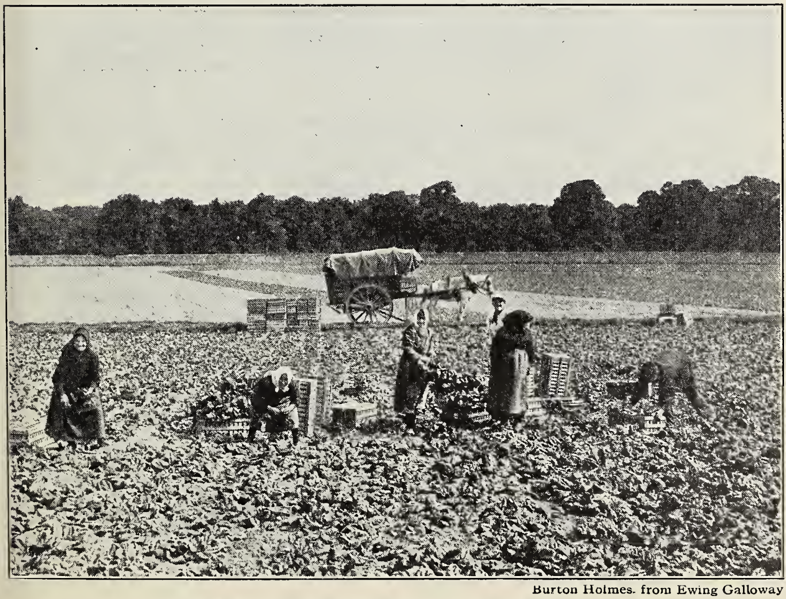


Fig. 86. A rye field of France. While the machine shown in the picture is not drawn by a gasoline tractor such as one often sees in the grain-producing regions of the United States, it is a great improvement over hand methods



Burton Holmes. from Ewing Galloway

Fig. 87. No machines have yet been invented for much of the work on a truck farm

In France Today Many Goods Are Still Produced by Skilled Craftsmen

We have learned that while France has industrialized in the same way as have both the United States and Great Britain, she has not industrialized to the same extent. More than half her people still get their living on farms.

Many of those who live in towns, however, do not work in factories or stores. Many are still handicraftsmen. This situation is unusual because in other countries where there is machine manufacturing the craftsmen have practically disappeared. In the United States, as we know, there is very little handicraft. In England machine work has almost entirely replaced hand work. In France, however, machines have not driven out the craftsmen, who still make a large part of France's goods.

Like the artisans of the Middle Ages and those of India today, the craftsmen of France are greatly interested in their work. They like to work with their hands. They do not care so much about producing huge quantities as do the manufacturers in the United States or in England. They care more about making a few individual products. The very fact that the work of the craftsmen is not done on a large scale adds to its value. Almost everyone prefers to have something that is handmade and unlike anything else of its kind.

A story is told which illustrates this love of the French craftsmen for their work. A certain Frenchman with his family made a very exquisite kind of perfume. They did not make much of it in any one year, but what they made was of fine quality.

An American visiting them said: "But, look here. Let me lend you a little money. Hire some people. Do as I show you, and soon you will be able to turn out a big quantity of this perfume. It will sell everywhere. You will get rich."

"Then what should I do?" asked the Frenchman.

The American explained that the Frenchman would be the owner and the manager. He could see that the other people performed their work. He wouldn't need to do anything at all if he didn't want to.

The Frenchman shook his head. "I'd rather make my perfume myself," he said.

So today many of the manufactures of France are not measured in 1000-ton quantities, but they have a world-wide reputation for fine quality of workmanship. Enter a little shop in Paris or in any of the smaller towns of the provinces. Behind the main room is the workroom, where everything is made. Of course most of the things are of a kind that can be made from start to finish in small shops — such articles as clothing, bags, jewelry, lingerie, candies and confections, and metal and leather goods.

The chief exports of France are silk textiles, cotton goods, clothing, automobiles, iron and steel, chemical products, rubber goods, wine, soaps and perfumes, table fruits, glass, etc. Many of these things cannot be made entirely by machines. The finishing of many of them depends, as in the days before the machine, on the skill of individual craftsmen.

Thus handicrafts have continued in France to the present time. Many a workman still lives today with his own factory and retail store right in his house, as once did the craftsmen of England and the United States. The French have not formed so many big business organizations and have not developed industries on so large a scale as have the English and the Americans.

Today France, although changing, still continues many of the same ways of living that she has practiced for 1000 years. Will she continue to do so?

SUMMARY: FRANCE TODAY, THEN, IS STILL A COUNTRY OF MANY SMALL CRAFTSMEN, SHOPKEEPERS, AND FARMERS

We have now studied the industrial and agricultural development of France and of England. Although they are of almost the same population, the growth of the two countries has been very different.

1. England developed machine industry rapidly; France, much more slowly.
2. A vast proportion of the English people moved into cities, working in factories; more than half of the French people stayed on farms. Many of the French people who did move into cities continued to engage in handicrafts.
3. England has tended toward mass production of goods; France, toward the production of "quality" goods.

4. No matter whether a country goes into machine industries or not, the getting of sufficient food remains a problem. The amount of land which can be used for farming purposes is much less per person in England than in France, and most of the English people are not engaged in the raising of food. A large proportion of the French people still raise a part of their own food. Therefore, while England depends upon other countries and regions for food, France is almost self-sufficient.

5. France, although not so much as England, has become a world trading nation.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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CHAPTER VIII

HOW FRANCE BUILT THE SECOND LARGEST EMPIRE IN THE WORLD

Dinner was over in the Paola House, and several traveling salesmen were cooling off in the chairs in front of the hotel. The argument which had started over England's trade, long before the evening meal, had lasted through various courses and was now being continued about French trade.

"The French Republic! What do you mean — republic? France is an empire. In fact, it has the greatest *colonial* empire on earth. It actually reaches around the world!"

The speaker dropped his chair with a thud as if to emphasize the point he was making.

"Why, certainly you must be wrong," murmured another member of the group. "France is a republic. She elects a president just as we do in the United States. What about her Chamber of Deputies and her Senate?"

"Oh, of course, France is *called* a republic. She has a president, and her government is that of a republic. But we ought to speak of the French empire instead of the republic of France, just the same!"

"How do you make that out?" came a question in the midst of several objections from the group.

"Why, simply because she controls land all over the world. She owns land in *Indo-China* and in *northern* and *central Africa.* The great island of *Madagascar* is hers. A great portion of *Siam* is under her flag. *Morocco* and *Syria* salute the French tricolor."

"By calling France an 'empire,' then, you mean just that she owns or controls lands outside her own boundaries? Is that it?"

"Sure, that's it, and that's what she does. Why, do you gentlemen know, there are more people living in French colonies than in France itself? You don't believe it? I can give you the figures for 1936. In that year there were more than 108,000,000 people living in the entire French empire." (How does this compare with the population of the United States?) And of these "only about 42,000,000 were living in France."

"He's right," spoke up a quiet, elderly man, who had been amused at the heated conversation of the evening. "France herself is small compared with her possessions! She isn't one tenth as large as the whole empire."

"One tenth!" exclaimed a young engineer who appeared at the door with a map showing the French empire (see figure 88). "Why, she isn't one twenty-fifth as large, or I lose my bet. She certainly is a 'world empire'! Yes, sir, over 4,500,000 square miles in all. More territory than in the United States. Second only to England in the amount of foreign land she controls."

When did France build up her empire? How did she build it? Why did she build it? Did the introduction of machine industries have anything to do with it? These are the questions which we shall try to answer.

If we were to study carefully the history of why France took each of her colonies, we should find that the reasons were much like those of England. One colony was rich in raw materials. Another was a good market for French manufactured goods. A third offered good investments for French money. Another was on an important trade route.

WHEN WERE THE COLONIES ADDED TO THE FRENCH EMPIRE?

On page 176 is a list of the lands included in the French empire and the dates when they became part of it.

Notice that the first colony was taken in the early 1600's; the latest was added in 1922. Almost 300 years of empire-building!

THREE HUNDRED YEARS AGO FRANCE TRIED TO SPREAD HER EMPIRE OVER THE NEW WORLD

You remember that England first began to build her empire in America in the 1600's. Throughout those first years of empire-building France was England's greatest rival. French explorers and traders met Englishmen at every turn. Men of both countries raced to settle colonies and to claim land for their kings.

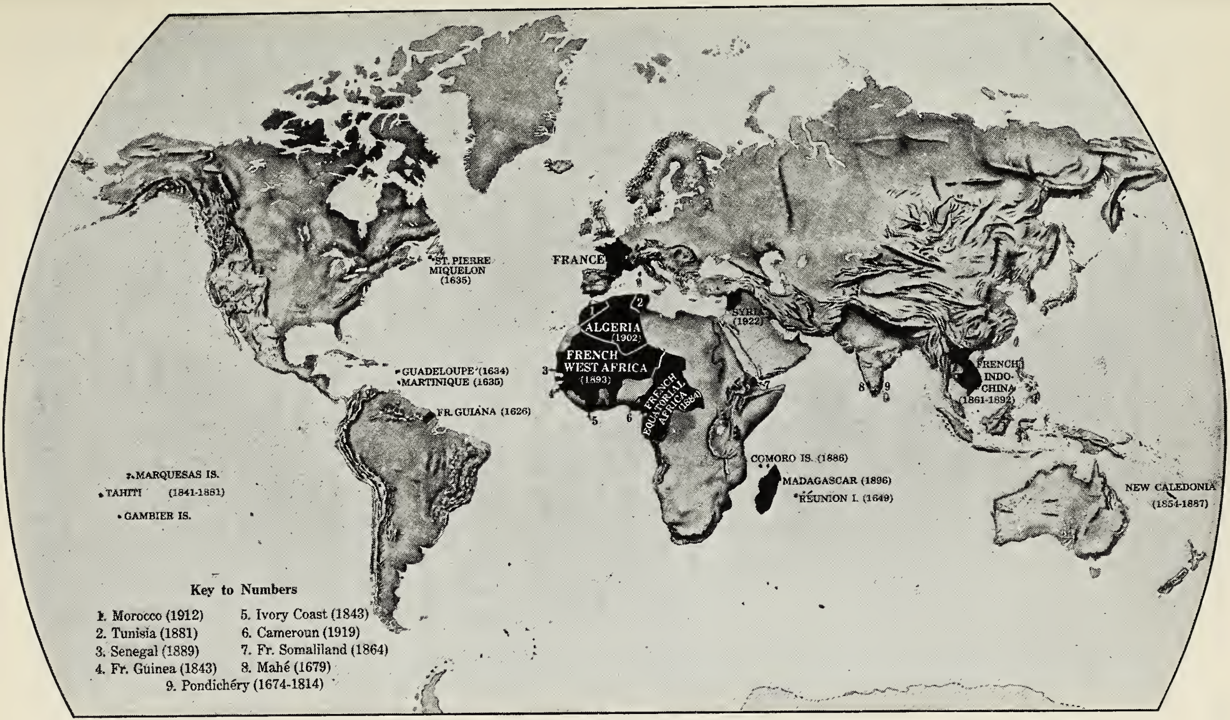

ST. PIERRE
MIQUELON
(1635)
FRANCE
1
2
ALGERIA
(1902)
SYRIA
(1922)
FRENCH
WEST AFRICA
(1893)
3
4
5
6
7
8
9
GUADELOUPE (1634)
MARTINIQUE (1635)
FR. GUIANA (1626)
FRENCH
EQUATORIAL
AFRICA
(1884)
FRENCH
INDO-
CHINA
(1861-1892)
COMORO IS. (1886)
MADAGASCAR (1896)
RÉUNION I. (1649)
NEW CALEDONIA
(1854-1887)
MARQUESAS IS.
TAHITI
(1841-1881)
GAMBIER IS.
Key to Numbers
1. Morocco (1912)
2. Tunisia (1881)
3. Senegal (1889)
4. Fr. Guinea (1843)
5. Ivory Coast (1843)
6. Cameroun (1919)
7. Fr. Somaliland (1864)
8. Mahé (1679)
9. Pondichéry (1674-1814)

FIG. 88. Map of the world, showing the French Empire

LANDS INCLUDED IN THE FRENCH EMPIRE

AMERICA	
Guadeloupe	1634
Saint Pierre and Miquelon	1635
Martinique	1645
French Guiana	1626
AFRICA	
Algeria Sahara	1830–1902
Tunisia	1881
Senegal	1637–1889
French Sudan Upper Volta	1893
French Guinea	1843
Morocco	1912
Ivory Coast	1843
Dahomey	1893
Mauretania	1893
Niger	1912
French Congo	1884
Cameroon Togo	1922
Réunion	1649
Madagascar	1643–1896
Comoro Islands	1846
French Somaliland	1864
ASIA	
French India	1674–1814
French Indo-China	1861–1892
Syria	1922
OCEANIA	
New Caledonia	1854–1887
Tahiti	1841–1881

While England was making colonies along the Atlantic coast of North America, the French were building trading posts and forts west of the Appalachian Mountains and in what is now Canada. The French colonies were not so strong as the English, however. After many years of bitter rivalry on American soil and of war in Europe, France gave up her rights in Canada to England.[1]

At the time that the colonies were forming in Canada, La Salle and his brave French companions were exploring the Mississippi and Ohio valleys. There they claimed much territory for France. England eventually took much of it and added it to her colonies.

France held "Louisiana," however. This was then a great territory covering most of the west side of the Mississippi Valley. In 1803 the French ruler, Napoleon, was very busy conquering Europe. This task was an expensive one, and there was never enough money in the French treasury for the wars. So Napoleon agreed to sell the great tract of land, Louisiana, to the United States for the sum of $15,000,000. That was the end of the old French empire in North America. Today Saint Pierre and Miquelon, two islands in the great fishing region off the coast of Newfoundland, are all that remain to France.

[1] Longfellow's *Evangeline* tells something of the life of the early French-Canadian settlers and how some of them were driven from their homes by the English.

In the West Indies and South America, Martinique, Guadeloupe, and French Guiana are today under French control; but the rich island of Haiti, which she owned for a time, was lost through revolution.

France Attempted To Build an Empire in India

In India, as well as in North America, France lost her foothold. In the 1600's, along with the Portuguese and the Dutch, the French traders were rivals of the English East India Company. Finally they were forced to give way to England. Today the country is controlled by Great Britain, and there remain but a few French ports and some other cities with French names. One port, Pondichéry, is today the center of the French trade in India. It is still a valuable possession. But all of France's possessions in India amount to only 196 square miles.

Throughout the 1700's, as you will notice on the list of colonies, France added almost nothing to her empire. During those years constant wars at home prevented colony-building. By the time the wars were ended France had actually lost almost all the empire she had already built.

After 1800 France Began Building an Empire in Africa

1. Algeria

In the 1800's, however, conditions at home became better, and some French business men began again to think seriously of colonies and trade. Algeria in northern Africa, just across the Mediterranean Sea, looked promising. It is only a short distance from Marseille, one of the best French ports.

For many years a few of the more daring French traders had called at the town of Algiers, on the African coast, at their own great risk. During the 1700's and early 1800's there were many pirates on the Mediterranean, as you learned in an earlier chapter. They were fierce, dark men most of whom came from Algiers. Any European merchantman was a target for their swift ships. Once captured, the European crews were taken to Algiers, where they were thrown into prison. There they waited months until their families or friends at home sent money to ransom them. If the money did not arrive, the unfortunate prisoners were sold as slaves.

From time to time the various European nations and the United States tried to stop the robbery by these Algerian "corsairs," as the pirates were called. France was especially eager to be rid of them, for pirate ships had actually landed at French ports and plundered towns along the Mediterranean coast of France.

As late as 1830 the ships of the Mediterranean were still in great danger of being captured by these people. In 1827 events took place that led to the wiping out of the pirates and the beginning of the building of France's new empire. The French consul was arguing one day with the Dey (ruler) of Algeria about some grain. The Dey lost his temper and slapped the Frenchman's face. At the same time a French vessel was fired upon in the harbor by Algerian guns. Those were insults which France would not tolerate.

French soldiers were hurried to Africa. They conquered Algiers, the capital of Algeria, and marched through the country, driving out the native rulers. After this had been done, the French government was not at all sure what should be its next move: the problem was whether to stay and govern Algeria as French territory or merely to leave troops and warships in the harbor to crush pirates.

Finally France decided that halfway measures would not do. She would make Algeria part of French territory. It took the French seventeen years to do it. But by 1848 Algeria was really a French colony.

Though the country was added, or annexed, to the French empire, peace was not restored. During the next 50 years there were many uprisings. The desert tribes were fierce and were hard to conquer. In 1851 a rebellion broke out and was put down. Between 1864 and 1872 there was almost constant trouble. In 1881 there was another rebellion. Even as late as 1927 the French government was still having difficulty with some of the tribesmen.

The taking of one colony led to the taking of others in Africa.

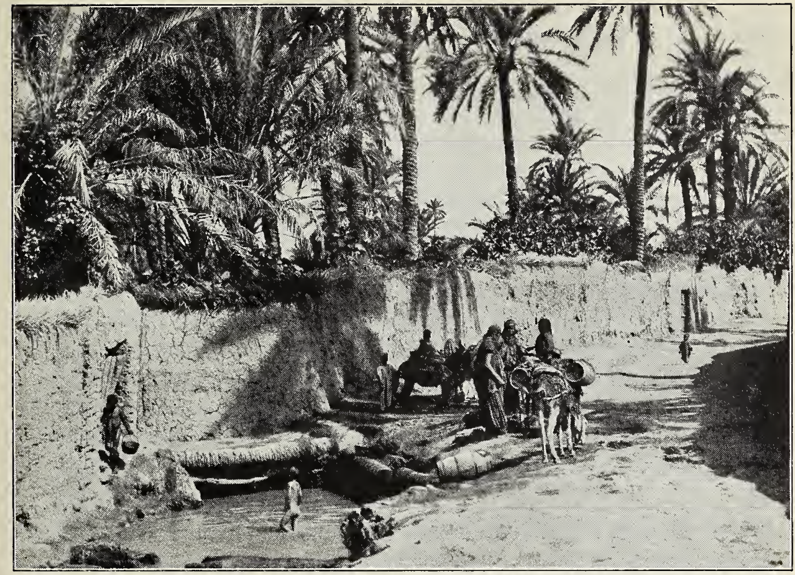
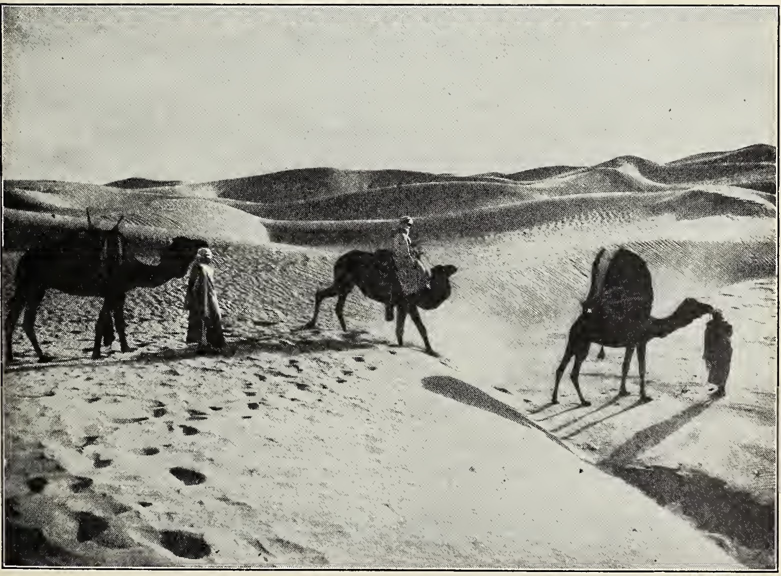


Fig. 89. Except for the coastal regions Algeria is largely a country of mountains and deserts. Oases such as this supply food and drink to the traveler



Ewing Galloway

Fig. 90. South of Algeria lies the Sahara. Wandering tribes of Arabs travel its sandy hills from oasis to oasis under a scorching sun

2. Tunisia and the Sahara

On the north shore of Africa, not far from Algeria, is another small country much like it, called Tunisia. Tunisia too had been the home of many pirates. In order to keep Algeria quiet the French decided to seize Tunisia. This added another African region to the French empire.

Then, step by step, during the next 30 years, French soldiers carried the French flag to the heart of Africa. By 1904 the French empire extended over much of the Sahara Desert.

Not only was a large part of the Sahara claimed, but some of the Sudan and a large part of the central jungles as well. These areas became known as French West Africa and French Equatorial Africa. The conquest of these new countries of black men was quite different from the warfare with desert tribes of the Sahara or with the warlike Arabs of the north coast. Every little village had to be seized separately.

On the whole, the blacks were uncivilized. They lived scattered over the vast central African territory. Often deserts, jungles, or mountains had to be crossed with great difficulty before the soldiers could go from the conquest of one tribe to that of another. The natives did not lead settled, organized lives; and after control had been gained, it was hard to keep.

This new empire, won in the later years of the 1800's, was immense in land area. From Algeria south to the mouth of the Congo River lay a vast stretch of about 1500 miles. The entire territory was conquered. *It is about eleven times as large as France itself.*

Most of it is sandy desert — the Sahara — where Bedouin tribes, which are few in numbers, are almost the only inhabitants. The tribesmen spend their lives wandering over the desert with herds of camels from oasis to oasis, in the midst of this vast area of wasteland.

3. Morocco followed Algeria, Tunisia, French Equatorial Africa, and French West Africa into the French empire

After Algeria, Tunisia, French Equatorial Africa, and French West Africa had all been made French colonies, the home government thought it might be well to take all the territory across northern Africa. So France took the part of Morocco which lies just west of Algeria.

Spain, Germany, Great Britain, and Italy, however, were opposed to such a plan. But by giving up her claims to some other territories, France finally gained most of Morocco and established a protectorate. This was arranged in 1912 after a dispute which had lasted for years. The other European nations, however, still denied France any special advantage in the Moroccan trade.

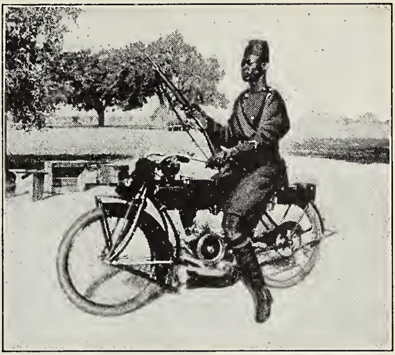


FIG. 91. One of Morocco's native policemen. Today many of the native people of France's empire help her to maintain peace in her colonies. This is just as true of many native people in the British Empire

4. France took Madagascar also

Where is Madagascar? If you do not know, look at the map of figure 88. You will see that although Madagascar is an island, it is larger than France itself.

In 1643, when the French first went into Madagascar, it was a country in which the native tribes lived in settled communities. They cultivated the ground without plows and harvested crops of rice. Besides tending their farms the men worked at metal-making. They were proud of their fine chains of gold and silver. The women spun and wove silk and cotton cloth and made straw mats and baskets.

The Malagasy, as the native people were called, practiced and believed in witchcraft and sorcery. Throughout the year they had many holidays, during which everyone feasted and drank. They were very cruel to their enemies in warfare, but they were known to be kind to their families and respectful to the aged.

The natives were opposed to the coming of the Europeans. Rebellions were frequent until as late as 1895. In that year a number of French warships landed troops on the coast. A battle followed. The French troops with their firearms easily defeated the natives, and French officers took control of the land. Madagascar became a protectorate of France, and in 1896 was declared a colony.

Today Madagascar is a valuable French possession. The land is rich in gold and other minerals. Valuable trees, including the rubber tree, grow on the island.

Since 1896 French trade with Madagascar has greatly increased. French engineers went to the island and mined gold in ever-growing quantities. Factories were built for the weaving of silk and cotton cloth. Sugar-refining mills were built. Soap-making became an industry. The natives began to export rice, liquors, metal ware, gold, coal, hides, rubber, straw hats, coffee, and fertilizer.

French bankers introduced the use of money. Roads were made and railway tracks laid. Great sums of French money were invested in the new industries and in the improvement of the land.

Today Madagascar is cultivating more than 3,000,000 acres of land, on which great quantities of sugar, coffee, rice, cotton, vanilla, and vegetables are raised. The natives are much more prosperous now, because the French government has taught them to use scientific, up-to-date methods in caring for their forests and farms. Silkworms are raised. Mines are being developed. Railways and telegraph and telephone lines are being built.

France Now Controls Syria on the Mediterranean

You remember how eager English traders were to control as much as possible of the Mediterranean Sea, and how England added much of this territory along the shore line to her empire.

If you look carefully at a map of France, you will see that the location of Marseille is very favorable for trade both on the Atlantic and on the Mediterranean. Like England, France wanted to have a share in controlling the Mediterranean trade routes, so she took a great portion of the northern coast line of Africa — Algeria, Tunisia, and Morocco. But she still wanted some territory on the east coast in order to protect the trade route to French Indo-China.

In 1922, with the permission of the other European nations, France took control of Syria. Look on the map of figure 88 and find just where Syria lies on the Mediterranean.

French Indo-China: How France Extended Her Empire to Asia

France was already winning vast African holdings during the 1800's, yet she looked still farther for more lands to add to her empire. At the same time that nearly half of Africa was being taken, another distant colony was added to the empire.

This is now French Indo-China. In 1850 there was no such place on any map of the world. There was instead a great territory on the southeastern Asiatic coast known as Cambodia, Tonkin, Laos, Annam, and Cochin-China.

Why did France want these lands? The answer is the same as in other similar cases — trade.

French Indo-China is a region of rich natural resources. It grows cotton, tobacco, coffee, pepper, palms, sugar, and many other things. It also produces hides and silk. Many metals lie beneath the ground — iron, copper, zinc, tin, and gold.

In the southern part of the peninsula, near the mouth of the Saigon River, is Saigon, the capital of old Cochin-China. This is one of the world's greatest rice ports. Not far from Saigon more than 2,000,000 tons of rice are grown every year. The rich soil also produces fine crops of many kinds of vegetables and tropical fruits. Cattle graze on the highlands far north. In the waters near the coast are many edible fish. It is not difficult to understand that Indo-China too is valuable to France.

In the old days Annam was the province north of Cochin-China. There the natives raise silkworms, which spin great quantities of silk. From the raw silk gorgeous fabrics are woven.

Still farther north, in old Tonkin, on the southern border of China, are the great mineral deposits which the French desired. There also are forests of the heavy tropical teakwood. In the spring huge quantities of timber are cut. The logs are carried by elephants to the Mekong River and then floated down to its mouth. There some of the logs are made into furniture, and some are shipped to foreign lands.

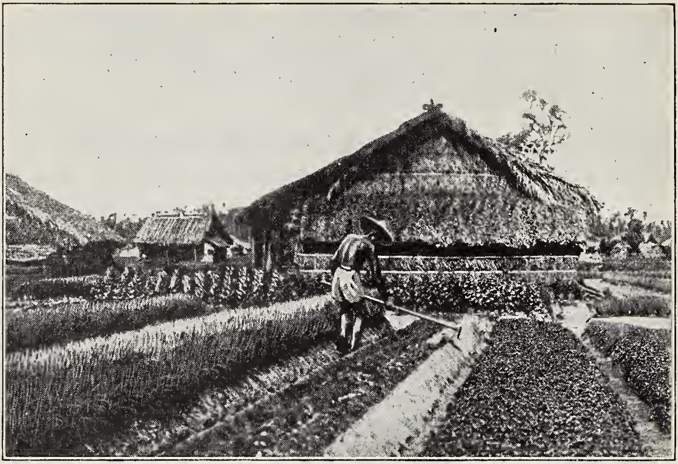


FIG. 92. The natives of Indo-China are learning new agricultural methods from the French. This shows one of their model truck farms near Saigon. French Indo-China is a valuable food-producing region

How Tonkin looks to a traveler

In Tonkin there are no severe winters. Each year has a rainy season and a dry season. During the rainy season great quantities of rain fall almost every day for months. The rice fields lie flooded. Heavy storms drench the workers in the fields. Knee-deep in the mud, water buffaloes plod along, dragging plows and thus preparing the land for the first spring rice crop. Later the farmers work bent almost double as they take the young plants from the seed beds and set them into the flooded fields.

After the rain comes bright, warm sunlight, which makes the watery fields glitter like great mirrors. On every side are flooded fields and ditches. The men work in the water, barefooted and barelegged. Their heads are protected against the weather by wide mushroom-shaped straw hats. The women help with the work, too. They work in pairs, facing each other. All four hands grasp the ropes, which are used to lower and lift deep bamboo baskets of water into and out of the ditch. The women work with a steady, continuous rhythm, keeping time to a monotonous chant. Dip, lift, dump, — their arms work unceasingly, almost mechanically.

In spite of the fact that two good crops of rice are raised each year by the Tonkinese farmers, they earn only about five cents a day. The people live poorly indeed in little villages. Their homes are small, flimsy thatched hovels, which often stand in pools of water.

The deepest impression which a traveler in Tonkin carries away is one of toil and poverty. The farmers seem all alike. They are tied to the earth, and the rewards for their work are very small.[1]

The city of Hanoi is the capital of French Indo-China

Hanoi seems like a town of the Middle Ages. It is a city of handicrafts. There is a changelessness about it which makes one think he is seeing life today as it has been lived for centuries. Hundreds of years ago people in Hanoi must have been making the same kind of brass ornaments in the same way — round bright trays, pots and kettles, and slim-necked vases of inlaid brass and bronze. These are placed on shelves or stands in corners, as though they had been there since time unknown. The metalworkers, who are tapping, tapping, with great skill and patience, might have been squatting on the floor since the days of Marco Polo, so far are they behind our twentieth-century ways of working.

The streets of Hanoi are like departments of a great store. One street is Brass Street. There only brass and bronze things are made and sold. Another is the Street of Tea Ware, where, stacked on low tables which reach out into the street, are tiny teapots, plates, and cups made without handles. Farther along there are Cotton Street, Trunk Street, the Street of Sails, Hat Street, and streets named for many other things. There are streets for everything that is for sale in Tonkin.[2]

These are glimpses of one country which France has added to her empire. You will probably agree that it was a possession well worth having for the sake of its natural resources, trade, and agriculture.

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[1] This description has been adapted from the words of an eyewitness, Gertrude Emerson, in her article "Backwater of Empire in French Indo-China," in *Asia* (New York) for September, 1923, p. 673.

[2] Ibid. p. 670.

This valuable and interesting country was independent and almost unknown to Europeans before 1787. No country seemed to want to control the region. However, a few Christian missionaries, some of them French, were living there, and in 1858 the ruler of Annam put some of these missionaries to death. Later he refused to make amends for the deed.

The French government thought that this was reason enough for seizing the land. So in 1861 French troops began to subdue the natives of the southern peninsula, Cochin-China. Afterward they moved north and west until by 1884 Cochin-China, Annam, and Tonkin were all under French control.

After 1884 the French added to Indo-China some land taken from Siam. If you look at the map following page 424, you see that Siam is near French Indo-China. It is much the same kind of country, with rich minerals and forests.

The French business men from French Indo-China wanted permission to work the mines and cut the timber. The king of Siam refused to allow this; so a French fleet set out to compel him to grant permission. Bangkok, the capital city of Siam, was blockaded. Finally the king of Siam had to give in. By 1907 a great slice of eastern Siam had been seized by force and added to the French empire.

The map of Asia shows you the extent of French Indo-China today.

Of How Much Value to France Is Her Empire?

France, like England, took colonies for several reasons. One reason was that she wished to help her business men to trade with every part of the world.

For example, in a recent year French manufacturers of cotton goods sold a third of their goods in Algeria, and large amounts of metal goods and wines were bought there.

French Indo-China is an important customer of French merchants. France sells cotton goods there as well as in Algeria, Tunisia, and Morocco. In recent years the people of Madagascar have bought millions of dollars' worth of goods from French merchants. So these possessions provide good markets for French manufacturers.

The colonies are valuable to France for a second reason: they provide her with many raw materials of which she herself cannot produce enough. Algeria sends oxen and sheep to French cities. French Indo-China sends rice, corn, oxen, rubber, fish, oil, pepper, tea, cotton, silver, zinc, and leather. Madagascar sends great quantities of graphite, hides, vegetables, rice, tanning bark, and raffia.

There is a third reason why France wanted her colonies. Wealthy French people could invest their money in the colonies, knowing that such investment would make profits for them. They have laid out plantations of rice, cotton, rubber, and tobacco in French Indo-China and Madagascar. In these colonies there are now millions of acres of well-cultivated farms. Mines have been opened, railways have been built, and much travel and shipment of goods are done by rail. All these things make money for French business men whose money is invested in these lands.

We learned that the British have gradually changed undeveloped regions into fairly industrialized countries by building roads, railways, factories, and plantations. France is doing the same with her possessions. Her colonies are gradually taking on European ways of working and living. Northern Africa is becoming industrialized. Farming in Madagascar is becoming more scientific. Towns and cities are growing as roads and railways are improved.

These changes in Asia and Africa are very important. We shall learn more of them later.

Were the French People Themselves Interested in Acquiring Land?

You remember that in Chapter VII most of the French people were pictured as farmers loving the land and craftsmen interested in the quality of their goods. How, then, can we explain the fact that these same Frenchmen, who were content to plow their own little acres, seemed to be eager to seize possessions in out-of-the-way corners of the earth?

If you will glance back through this chapter, you will notice that the French empire is really very young. Except for the early colonies in the New World, which France lost almost completely, the empire is hardly 60 years old.

The early empire was the work of the kings and the nobles. They thought that they, as well as the Spaniards, could win fortunes in gold from the New World. If there were great profits from the early colonies, the money went right into the pockets of the king and the nobles, and right out again to be spent for luxuries.

After the French Revolution of 1789 the people were little interested in the world outside France. They were busy working their newly won lands at home. They were developing their little businesses. They did not have time to think of getting colonies across the seas. They did not even want to hear about them. Their thoughts and ambitions centered about their homeland.

Even after 1830, when the Industrial Revolution began to change France, the French peasants showed no interest whatsoever in colonies. As late as 1885 the representatives of the peasants in the French government were not particularly eager to take French Indo-China, and the government finally agreed to seize it by a margin of only four votes. Scarcely enough votes could be secured to make possible the support of the army which was besieging Tonkin. Yet French Indo-China is a very rich region.

Why were most of the French people so uninterested in colonization and empire-building?

Because the French farmers raised most of their own food, the problem of France was not at all that of England. The English people had to import their food or starve. The French people did not need colonies to feed them.

Another reason why the Frenchman did not share the Englishman's dream of empire was that he did not care to emigrate. He preferred living at home on his little farm or in his shop. Very few Frenchmen have settled in Algeria or in the other French colonies, for the government could not persuade many of them to leave France.

Who in France, then, did want colonies?

It was the wealthy business men of the cities who were engaged in manufacturing. As their businesses grew, their factories needed more and more raw materials. To get these raw materials, which they had to have to feed their machines, they wanted colonies. They also wanted new markets for the goods they manufactured. Therefore these men talked a great deal about the increasing needs of industry, and they still talk about it today.

Thus France built up an empire which in land area is second only to Great Britain's. She too traded with the world and became a rival of Great Britain in the modern world, as she was in earlier times.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT IV

GERMANY: A POWERFUL INDUSTRIAL NATION AND THE CENTER OF EUROPEAN TRADE

In the previous chapters we have studied how Great Britain and France changed from weak agricultural countries to powerful industrial countries. We have seen the extent to which each took up machine manufacturing and built modern means of transportation and communication. We have seen how people left their farms and villages and went to live in cities and towns. We have learned how they came to exchange products with other countries, and how they built up large fleets of merchant vessels to trade with the peoples of the other continents. We have also seen how Great Britain and France each built an empire of large territories and populations in distant parts of the world.

Next we must learn what happened to Germany during the Industrial Revolution. That is the problem to be taken up in Chapters IX and X.

Was Germany, like England, in 1800 a country of large landed estates and growing manufacturing towns and cities? Or was she, like France, a country of small farms, of handicrafts, and of few power-driven factories? Did Germany too become an industrial country? How did her people supply themselves with food? Did they also study science, invent engines and machines, mine coal and iron, and make steel?

These questions we shall discuss in Chapter IX.

We must also know the answer to other questions. We must know whether Germany sent her traders and her trading ships to Asia, Africa, and America to build up a vast system of world trade. Did Germany, like Great Britain and France, acquire colonies in the other continents? These questions we shall answer in Chapter X.

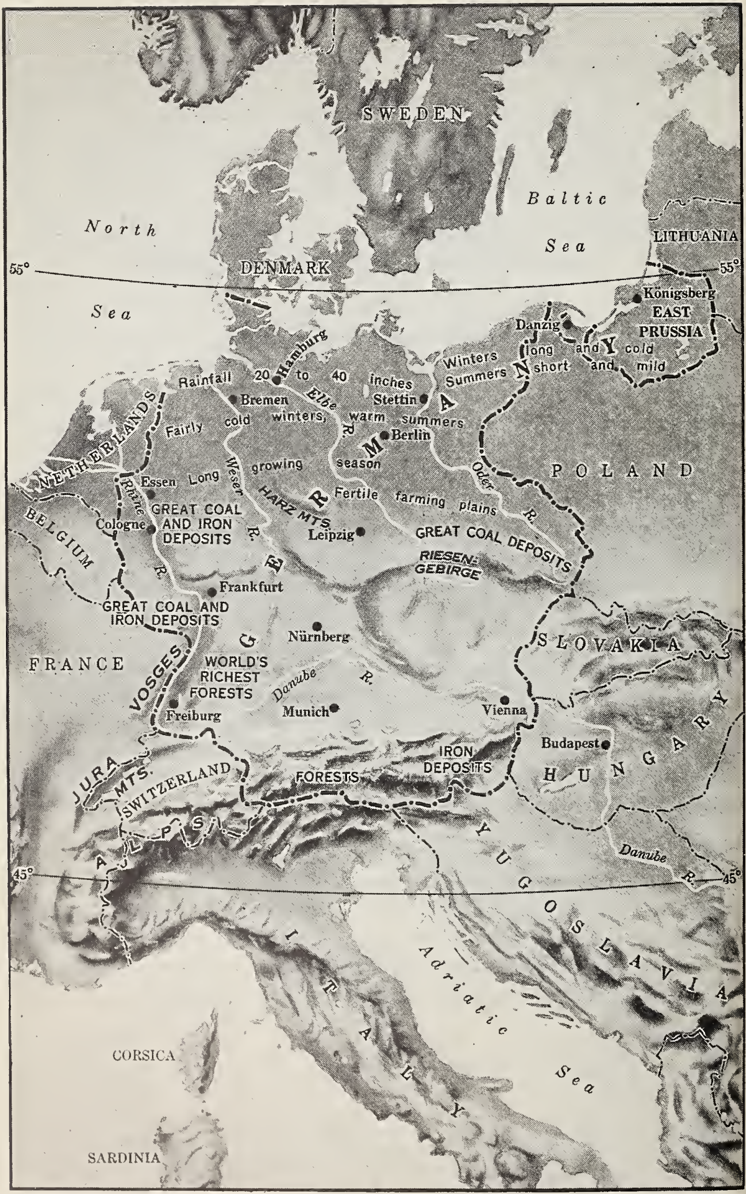

SWEDEN
North Sea
Baltic Sea
DENMARK
LITHUANIA
55°
Königsberg
EAST PRUSSIA
Danzig
Winters long and cold
Summers short and mild
Hamburg
Rainfall 20 to 40 inches
Bremen
Stettin
Fairly cold winters, warm summers
Berlin
GERMANY
NETHERLANDS
Elbe R.
Weser R.
Long growing season
POLAND
Oder R.
Essen
Rhine R.
HARZ MTS.
Fertile farming plains
BELGIUM
Cologne
GREAT COAL AND IRON DEPOSITS
Leipzig
GREAT COAL DEPOSITS
RIESENGEBIRGE
Frankfurt
GREAT COAL AND IRON DEPOSITS
Nürnberg
SLOVAKIA
FRANCE
VOSGES
WORLD'S RICHEST FORESTS
Danube R.
Freiburg
Munich
Vienna
Budapest
HUNGARY
IRON DEPOSITS
JURA MTS.
SWITZERLAND
FORESTS
ALPS
YUGOSLAVIA
45°
Danube R.
ITALY
Adriatic Sea
CORSICA
SARDINIA

Fig. 93. This map gives you ideas about the climate and some of the raw materials of Germany

CHAPTER IX

HOW GERMANY BECAME A GREAT INDUSTRIAL NATION

Great Britain, France, and Germany form the trio of powerful industrial nations in Europe. Great Britain and France are both small countries. How large do you think Germany is? Look at the map of Europe and notice the size of Germany.

"What a small country!" you think. "It's not much larger than France."

Yes, Germany is a small country — it has an area of only about 240,000 square miles. How does it compare in size with Great Britain and France? How small all these important countries seem when we compare them with the area of the United States!

Although Germany is small, it was one of the strongest industrial countries of the world before the World War. It had built up a thriving trade with every corner of the earth, and its empire was steadily growing. But Germany, like France, has only become industrialized during the past 50-odd years.

In 1800 Germany Consisted of Many Quarreling States

During the World War all the newspapers were full of articles and news items concerning the German Emperor. The "Kaiser" was as well known to most Americans as was their own President.

A century ago, however, there was no "Kaiser," for there was no "Germany."

In 1800 "Germany" was only a hodgepodge of independent states. There was one fairly large state in the north, called Prussia, with approximately 10,000,000 people, ruled by a king. There were about 30 other fairly large states, such as Bavaria, Saxony, Württemberg, Hanover, Baden, and Mecklenburg. They were not so large as Prussia, but each of them had a separate ruler.

Next in size there were some petty states, varying in population from less than 1000 people to more than 10,000 and ruled by dukes and counts. To make matters still more confusing, there were about six free cities, each ruled by its own local city government.

These states were independent of one another. Each ruler had his own little court and his courtiers. He was absolute dictator. He collected taxes from his subjects, charged a tariff duty upon all goods crossing his boundaries, and had his standing army — in the smaller states consisting of only one or two officers and a handful of privates.

One monarch quarreled with another about taxes, or something else. A war was declared, and the two began to fight with great vigor. No sooner would one pair of states quiet down than another pair would begin. Sometimes many states joined the fray.

Every little state was about as self-sufficient as a manor of the Middle Ages in England. The people made most of their own goods and raised their own crops. There was little travel across what is now Germany. People were inclined to stay close to their own homes within the narrow borders of their state; hence they knew very little about the world outside.

Village and Town Life in the Early 1800's

England was well on her way to becoming a manufacturing country when most of the German people were still making their living by farming. As late as 1850 serfs were still paying the wealthy landlords with services and a share of their farm products.

The three-field system of farming that was used throughout Europe in the Middle Ages was still the method used in dividing land in Germany even in the early nineteenth century. The farmers' plots of ground were small, and farming was done with the crude hoes, hand plows, sickles, and scythes of medieval times.

In Germany many of the farmers were also craftsmen, who earned a little money by handicraft when there was not much work on the farm. They spun yarn and wove cloth by hand at home. Some of the peasants carved children's toys and fancy cuckoo clocks from wood. Near the few iron mines some of the

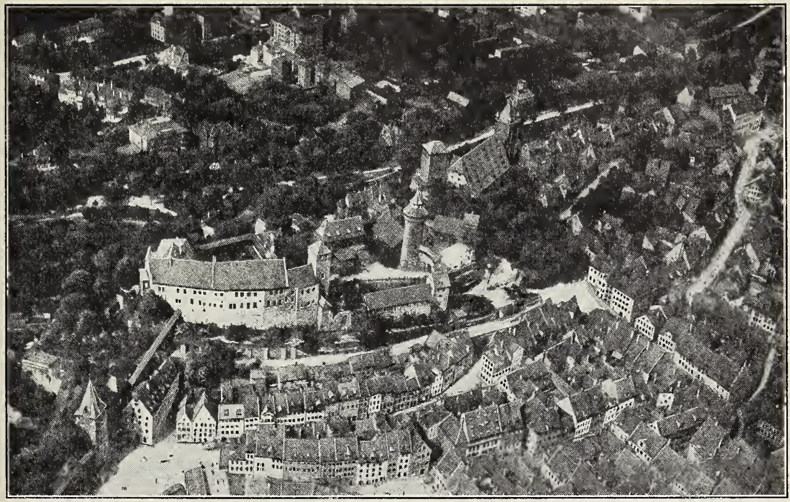
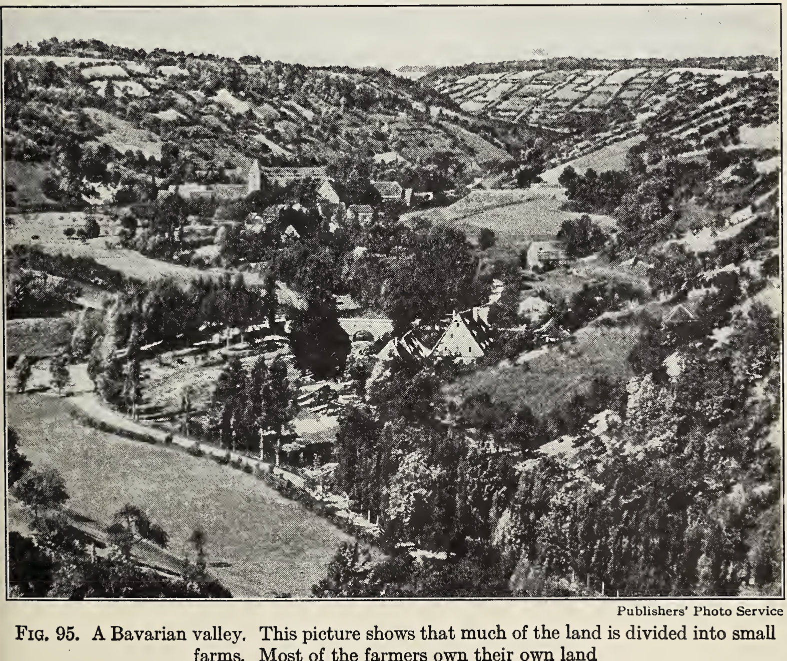


Fig. 94. Because of the constant danger of wars in the country we now call Germany the towns and cities of the Middle Ages were often fortified against attack. Nürnberg, shown in the picture, was one of these fortified medieval towns. (Courtesy of the German Railways)



Publishers' Photo Service

Fig. 95. A Bavarian valley. This picture shows that much of the land is divided into small farms. Most of the farmers own their own land

peasants made fine things of iron. On the whole, however, work on the farms, even in slack seasons, did not permit men to spend a great deal of time at handicrafts.

In the towns and villages there were workshops of tailors, cobblers, smiths, carpenters, and potters. These supplied most of the needs of the neighboring farms. Sometimes things were needed which the town craftsmen could not supply. Perhaps the needed article could be bought from a strolling peddler. If not, then people were forced to wait until the annual fair.

These fairs were really great markets, like the regular weekly market where townsmen and peasants met to buy and sell food. The yearly market was a great event, however. The spices, clothing, furniture, tools, and implements were brought to town by traders and merchants. The peasants, for their part, sold cattle and raw materials, such as wool and flax which the townspeople could make into cloth.

In addition the people were always well entertained by puppet shows, tight-rope dancers, and "English riders." Everyone from town and country came to the fair.

With the exception of the excitement of the yearly fair, life was usually very dull for the peasants. And though they worked hard, yet sometimes, if it had not been for their bits of handicraft, they would not have had enough on which to live.

Farming was so unprofitable that many people left the country. You will remember that between 1840 and 1890 thousands of these German peasants came to the United States to live.

Before 1870 the towns of Germany were small and unimportant

In Germany towns and cities did not grow so rapidly as they had in England or France. In 1815 the combined population of the twelve largest towns in the German states was only about 750,000. At that time Paris was a city of over 548,000 people, and London already had a population of more than 1,000,000.

AFTER 1840 CAME THE RAILROADS, AND GERMANY BEGAN TO CHANGE

Throughout the early 1800's almost three fourths of the German people were living on farms or in little villages. There was little travel or communication between the scattered parts of the country, for the roads were very bad.

NUMBER OF MILES OF RAILWAYS IN PRUSSIA, 1844–1860

Year	Miles
1844	500
1848	1500
1860	3500

Then about 1830 a number of German business men saw that the separated states might be greatly benefited by railroads, for they had observed that England and France were already using railroads very successfully to tie together their scattered cities and regions.

In 1835 the first railroads were laid in Germany. In Prussia alone railways grew rapidly, as shown in the table. Of course a change came about in the industries and in the lives of the people as soon as transportation improved. One writer said: "The railway changed the whole face of the land. . . . There was something American about it."

With the new transportation products could be sent 100 miles or more to market in a few hours. Such a trip would have required a week or more in earlier days.

YEAR	TONS OF PIG IRON PRODUCED
1865	975,000
1875	2,029,000

Up to this time iron-mining in Germany had been an unimportant industry. However, between 1865 and 1875, with the coming of railroads, this industry began to grow. The table above shows the increase in the production of pig iron. Compared with the amounts which England and the United States were producing at the same time, these figures seem very small. But the increase meant a great deal for German industry.

Coal production also rose, and even more rapidly than that of iron. In 1830 only a very small amount of coal was being mined; 28,330,000 tons were mined in 1865. By that time Germany surpassed France in the production of coal and iron. She was still far behind England, but she was making strides toward becoming an important industrial country.

Between 1860 and 1871 Prussia United Most of the German States into an Empire

There was one great stumbling block to rapid change in Germany, however. This was the fact that it was not a unified nation. The German people were like a large family of children who could not live together in peace. They spoke the same language, they lived mainly by the same kinds of work (farming and handicrafts), and in many other ways they were much alike. Yet the states quarreled with one another constantly.

Prussia was the largest and the most progressive of the German states. She was one of the first to introduce manufacturing and railroads, and it was she who arranged agreements among the states which made it easier to carry on trade.

The Prussian rulers were eager to unite the many little kingdoms. In the 1860's Prussia had a very brilliant and powerful statesman, Otto von Bismarck, who was the chief adviser to the king. Under his leadership Prussia defeated Austria and Denmark in war and great amounts of land were added to the state.

Then Bismarck argued that if the strong states like Saxony and Bavaria would combine with Prussia they could form a German nation that could never be conquered.

About this same time Bismarck began to covet certain French territories, especially Alsace and Lorraine, which at one time had been Austrian territory. For years many French leaders had also cast envious eyes at land which Germany held along the Rhine. They wanted the Rhine to be the boundary between Germany and France. At length in 1870 war was declared between France and Germany. By a series of startling victories the German armies swiftly defeated the French troops and took Alsace and Lorraine. After France had surrendered and Prussian leadership was secure, the rulers of the smaller states agreed that King William of Prussia should become emperor.

In 1871 William was officially made German emperor. The dream of the Prussian rulers was at last realized. For the first time Germany was a united nation, including within its boundaries all but a few of the states, both small and large, which had formerly been so independent.

Then began Germany's great industrial development. She changed her ways of living more rapidly than had any other country in Europe. Her leaders were in a great hurry to catch up with the other industrial nations, especially England and France. In the next 40 years they succeeded.

Germany's Location Was Favorable for Trade

Look at the map following page 336. Germany occupied a central position, with France, Belgium, and Holland on the west, the Scandinavian countries on the north, Russia along her eastern boundary, and Austria-Hungary on her southern frontier. She lay almost in the center of the growing trade routes between the different countries in Europe. Germany was indeed in a position to develop a great trade with all Europe, and her leaders determined to make that trade grow.

The first step was to improve transportation. For some years Germany had been laying rails and transporting goods over them from one part of the country to another. As the years of the 1870's and 1880's went on, these railways crossed the boundaries into other countries, connecting German cities with all the larger cities of Europe.

Other means of transportation were improved. Rivers were deepened. New docks were built, and old ones improved. More and more boats were going back and forth from one country to another. Manufactured goods and raw materials were being shipped. Even canals were being dug, not only within the boundaries of Germany but across the boundaries, connecting Germany with other countries.

Thus a great trade was growing, a trade that extended to England, France, Russia, Austria-Hungary, Belgium, the Netherlands, and many other countries.

Nature Gave Germany a Favorable Climate

Germany, like Great Britain, is farther north than the United States. It is also farther north than most of France. It lies between 48° and 55° north latitude. Nevertheless Germany has a warm growing season as well as plenty of rain.

Three factors especially have helped to make Germany's climate what it is.

First. Winds filled with moisture blowing in from the Atlantic Ocean, and scattering rainfall fairly evenly over much of the countryside.
Second. Winds warmed because they have passed over the Gulf Stream.
Third. No high mountains on the coast to stop the winds and cause the moisture to fall as rain before they reach the farmers' fields.

"We said the same thing about Great Britain and France!" you exclaim. That is true. Indeed the westerly winds and the Gulf Stream do much to determine the climate of the whole European continent.

However, the farmers of eastern Germany are not so fortunate as those of the west. This is because some of the winds blowing over their land come from the cold Baltic Sea, and some come from the east — from Russia and Poland. As a result the climate of northern and eastern Germany is moist and cold. Throughout the northern plains it is very cold in winter, and much snow falls.

The year in Germany, like that in the United States, is divided into four seasons. The summer is fairly long; there is much heat, and thunderstorms come frequently. It is cold in winter, and much of the time there is snow on the ground. The spring is mild; the autumn is cool.

Of course the climate is different in different parts of Germany. Though near the Baltic Sea it is cold and damp, in Bavaria in the south and even in much of the Rhine valley on the west it is mild and sunny.

Having had this brief glimpse of climatic conditions in Germany, we turn next to the study of German agriculture.

German Agriculture, 1871–1914

What about farming in Germany from 1871 to 1914? The German system of farming was somewhat like that of England and also like that of France. There were both landed estates and small peasant farms.

In Bavaria and in the west of Germany, near the French border, was a peasant agriculture much like that on the small French farms.

This is one of the most important farming regions of Germany. Throughout it most of the people are farmers. There are a few large cities (Munich, for example), but small villages and towns near the farms are more numerous.

In 1913, before the World War began, 70 per cent of all the land of Bavaria was cut up into small plots of less than 50 acres each. There were very few large tracts of land. Most of the Bavarian peasants owned their own farms. Some of them, who had very small plots of, say, five acres, worked part time for the wealthier farmers. Only a few farmers worked entirely on another man's farm.

In the north and east of Germany the farms were very different. Wealthy landlords called squires, or "Junkers," owned much of the land in large tracts of perhaps 2000 acres or more. They lived on their large estates, but they did not farm them. They hired peasants to work for them. Some of the peasants worked regularly; others, coming from other parts of Germany, worked only during the busy planting or harvesting seasons. In the later 1800's, as the German industries and factories grew, it became difficult to get enough German peasants to work during these short seasons; so the Junkers began to hire Polish, Russian, and Austrian laborers. These people lived in shacks on the Junker's land.

Much of the land of the north and east of Germany was taken up by these large estates. In Mecklenburg 60 per cent of the land was divided into large holdings of 250 acres or more. Large crops were raised on these estates, and the products were sent to German cities or to other countries.

What crops were raised on German farms?

If you happen to know any German immigrant families, you have probably noticed that they do not eat much white bread. They prefer rye bread, which is the typical German bread. Germany raises more rye than any other European country except Russia. France and Spain raise great amounts too.

Study the maps of figures 96 to 99.

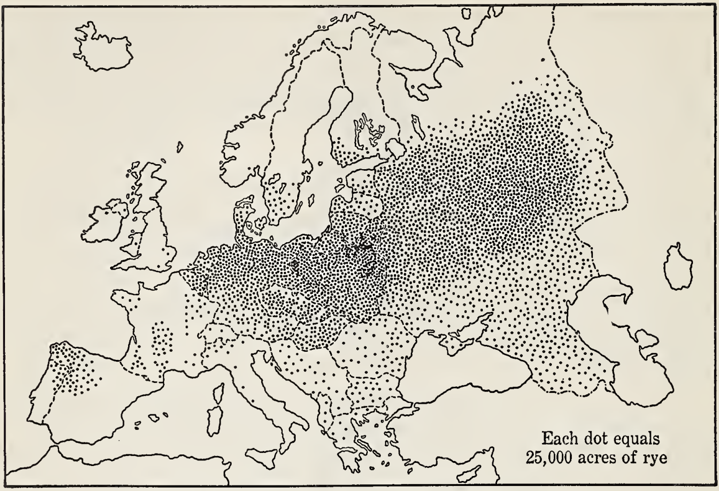


Fig. 96. Where the great rye crops of Europe are grown

Barley, oats, and wheat are also grown in Germany. The German farmers do not raise as much of these as they do of rye, however. Look on the map of figure 97 for wheat.

Two other important agricultural products are potatoes and sugar beets. Look on the map of figure 98 and see where potatoes are grown in Europe. Like the French, the Germans learned after 1800 that potatoes are a cheap and nourishing food; so each year they planted many acres to potatoes. Notice on the map the heavy black spot, which marks where potatoes are raised. It seems to be centered within the boundaries of prewar Germany. All through Europe, in central and southern France, Ireland, England, Russia, and in central European countries, millions of bushels of potatoes are grown. But Germany is the greatest potato-raising and potato-consuming country in the world. *In 1913 Germany raised between one fourth and one third of all the potatoes grown in the world.*

Perhaps you already know that sugar cane grows only in tropical countries such as Hawaii, the Philippines, Puerto Rico, and Cuba. All the world's sugar cane comes from climates much warmer than that of northern Europe.

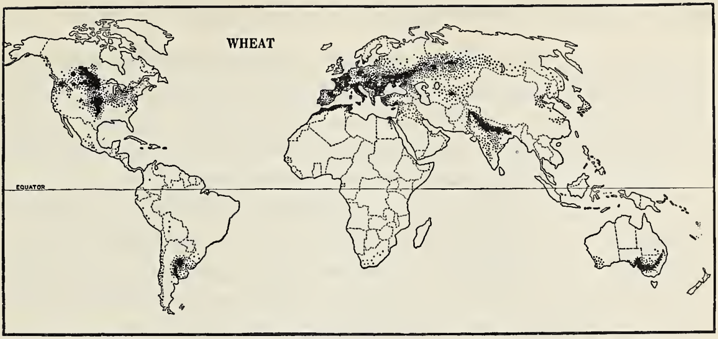

WHEAT
EQUATOR

Fig. 97. Where the great wheat crops of the world are grown

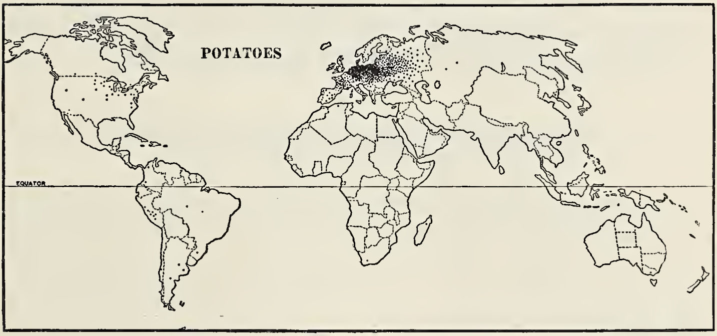

POTATOES
EQUATOR

Fig. 98. Where the great potato crops of the world are grown

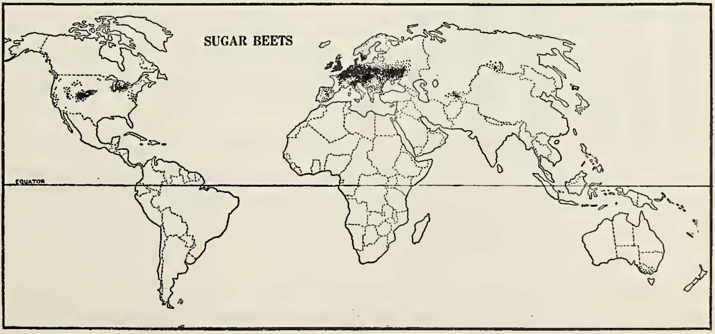

SUGAR BEETS
EQUATOR

Fig. 99. Where the great sugar-beet crops of the world are grown

Germany, of course, was too far north to raise sugar cane. So German statesmen and scientists decided that it would be well for Germany to find another way to get sugar and thus be independent of the tropical countries.

Sugar-Beet Production	
Year	Yearly Average in Tons
1866–1870 . .	2,500,000
1886–1890 . .	8,722,000
1906–1910 . .	13,423,000

People in Europe had been making sugar from beets for some time, as we learned in our study of France. However, the amount of sugar that could be extracted from the beets was very small.

After 1870 German scientists discovered how to extract greater quantities of sugar from beets. Today the German sugar-beet industry yields more than $1,000,000,000 worth of sugar and molasses in a year, and Germany grows more sugar beets than any other country in the world (see map of figure 99).

German chemists improved farming and increased agricultural production

The German chemists were very good scientists. In addition to the making of beet sugar they learned many things about how to improve farming. They learned, for instance, how to make their soil more fertile. People had known for ages how to use manure and other simple fertilizers, but the chemists learned that fertilizers could be made in their laboratories which were much cheaper, and for some purposes better. They then began to manufacture these in great quantities.

Estimated Average of Tons of Grain Raised Every Year, 1900–1904, 1911–1912		
Year	Wheat	Rye
1900–1904 . .	4,299,000	9,987,000
1911–1912 . .	9,281,000	12,329,000

Another thing which the German scientists learned was the reason why certain crops, such as clover, make the soil more fertile. The peasants who planted clover during occasional seasons and used chemical fertilizers found that their fields could produce greater crops than ever before.

After 1850 the large Junker estates in the north and east of Germany became models of scientific farming. Chemical fertilizers were used to improve the soil after scientists had learned what was needed. The crops were changed from year to year, as they were in the United States. The amount of land under cultivation increased, and naturally the crops increased greatly. The table opposite shows you the great increase in one crop alone. In less than 50 years the sugar-beet crop increased over 5 times.

Other crops as well, particularly rye and wheat, increased very much. Notice in the second table on page 204 how the amounts of two kinds of grain raised in Germany increased in a decade.

Every kind of livestock except sheep also increased greatly between 1873 and 1912, as the following table shows.

Production of Livestock

Year	Horses	Cattle	Pigs	Goats
1873	3,300,000	15,800,000	7,100,000	2,300,000
1912	4,500,000	20,200,000	21,900,000	3,400,000

Population Was Growing and People Were Moving into Cities; Food Had To Be Imported

In the days before 1870, when the population of the German states was small, German farmers were not only able to feed their own people but were also able to ship food to other countries.

After 1870 there were rapid changes. First, population in Germany grew fast, as figure 100 shows. Between 1870 and 1911 the number of people was increased by about 25,000,000. Second, more and more people crowded into cities (see figure 101). As has happened in every country which has taken up the new industrial way of living, many of the people of Germany left their farms to work in factories,

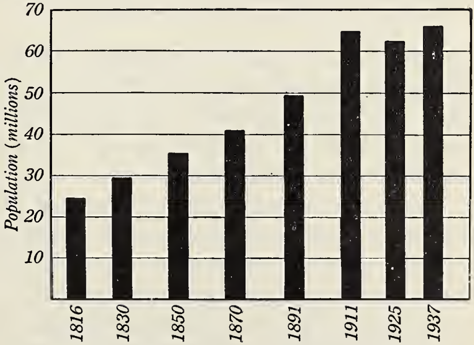


Fig. 100. Growth in the population of Germany, 1816–1937

mills, and mines. As a whole, however, the farming population of Germany decreased only slightly during this period.

Germany, turning more and more to manufacturing, faced the very same problem that England had to meet: How could the people be fed? With the rising city populations there was only one answer — food must be brought in from outside countries.

Between 1870 and 1880, therefore, Germany ceased to be a food-exporting country and began to import food from other regions. As time went on and the Russian people began to export the grains raised in their rich southern region, Germany came to depend more and more upon Russia. Between 1895 and 1900 only about three fourths of the wheat consumed by the German people was raised at home. Russia supplied most of the other fourth.

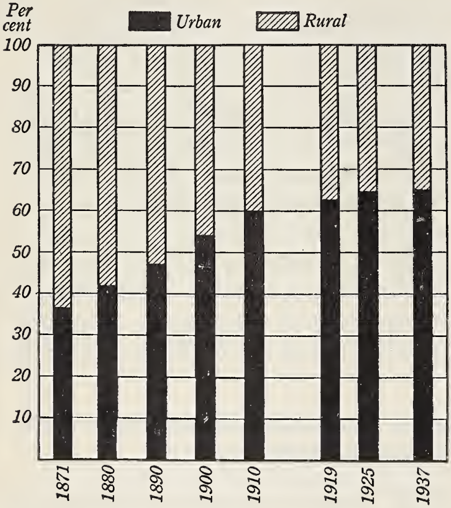


Fig. 101. In 1871 about 36 per cent of Germany's population were living in cities; by 1937 the urban population had grown to more than 65 per cent

Moreover, in spite of the increased production of livestock, Germany could not raise enough cattle and pigs to supply her rapidly growing population. Germany had to import cattle, beef, bacon, milk, cream, butter, and lard.

So greatly had the Germans changed their ways of living by 1914 that only five sixths of their food was raised on German soil. One sixth had to be brought in from other countries.

But still Germany was not nearly so dependent upon other countries for food as was England.

Germany Was Becoming a Leading Manufacturing Nation

In 50 years remarkable changes took place in German industry. When we studied the industrial development of Great Britain, we learned that changes there took place somewhat slowly over a long period of time. Not so in Germany. She was quite transformed in one third of the time required in Great Britain.

In 1870 very little iron was being mined in Germany, and almost no steel was being manufactured. *About 40 years later approximately 15,000,000 tons of each were produced annually! During the same period the amount of coal mined increased nearly 7 times.*

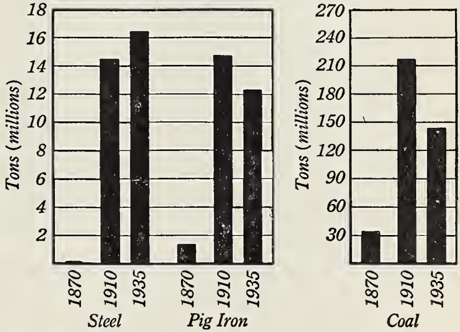


Fig. 102. These graphs illustrate the rapidity with which Germany industrialized after 1870. Steel, pig iron, and coal are the foundations on which an industrial nation is built

In 1870 there were only short lines of railway in Prussia and other sections of Germany. In 1914 thousands of miles of railway bound together every section of Germany in an *efficient and unified transportation system.*

In 1870 German scientists were just beginning to make inventions. By 1914 they had perfected thousands of new devices and had surpassed the United States in the invention of complicated machines which did the work of human muscles.

In 1870 there were almost no electric power stations in Germany. In 1914 millions of horse power of electricity were being made by burning coal or by damming rivers from the Alps to the Baltic Sea.

In 1870 most of the German trade was carried on between neighboring communities or neighboring towns. In 1914 it was world-wide. German salesmen everywhere sold articles marked with the famous "Made in Germany" stamp. In China, Japan, India, South America, South Africa, and the Near East they were busily finding purchasers.

In 1870 the German Empire consisted essentially of a little more than 200,000 square miles of land in central Europe with a population of 41,000,000. In 1914 it included about 1,230,000 square miles and about 77,000,000 people in various parts of the world.

What brought about this transformation in Germany?

There were several factors; but the chief ones were (1) Germany's favorable location for trade, (2) natural resources, especially great stores of coal and iron, (3) hard work by ambitious German people, and (4) a remarkable development in scientific knowledge and invention.

Do not those four factors sound very familiar? Where have we met them before?

We have already talked about the importance of Germany's location for trade. We shall see now how the factor of coal and iron played a very great part.

GERMANY'S NATURAL RESOURCES

The three important coal fields of Germany — the Ruhr, the Saar, and Upper Silesia

Germany has billions of tons of coal of different grades lying beneath her soil. It forms one of her greatest natural resources.

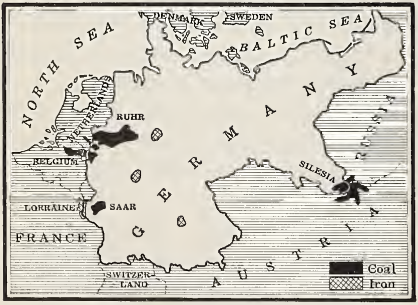


Fig. 103. Map of coal and iron deposits

The coal beds of Germany, like those of the United States, lie in separated deposits. One is in the valley of the Ruhr River. The second also is in a river valley — the Saar valley. The third is in Upper Silesia. Locate each of these regions on the map of figure 103. The first two are only

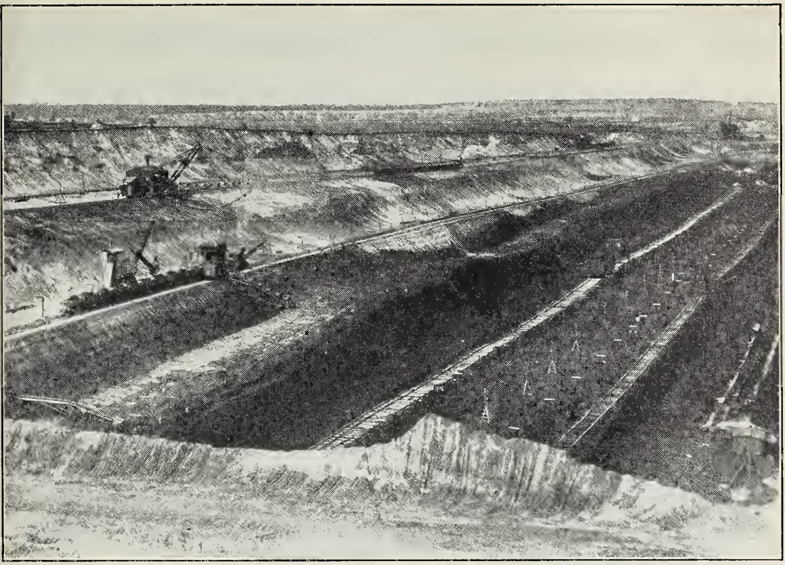
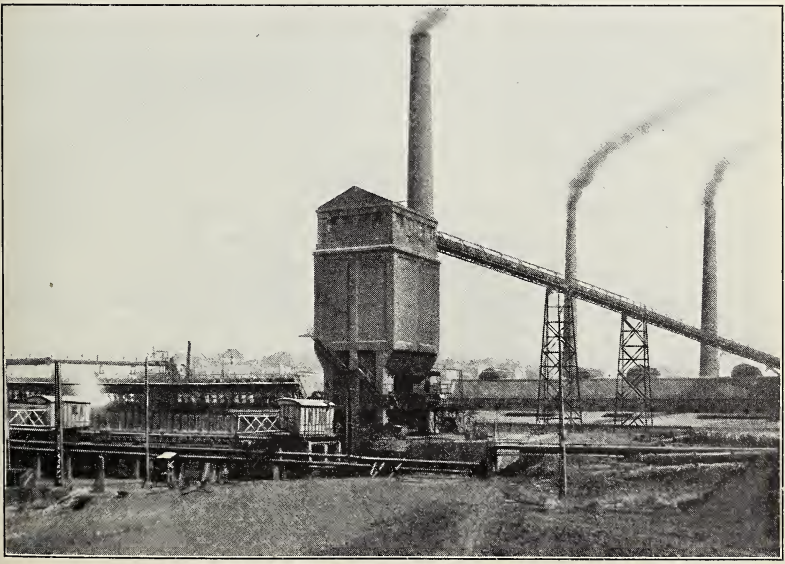


Fig. 104. Germany owns this open-pit coal mine, said to be the largest of its kind in all Europe. The coal is not of very good quality, but the German scientists have learned how it may be used efficiently



Ewing Galloway

Fig. 105. One would not find a great coke plant like this located in the Ruhr if there were not great coal resources close by. It indicates the importance of this coal field

150 miles apart. In 1913 these three fields produced 92 per cent of Germany's coal: 60 per cent came from the Ruhr, 23 per cent from Upper Silesia, and 9 per cent from the Saar.

Study the location of these three places carefully. Of the three, the Ruhr valley is by far the most important. In it has grown up a manufacturing district no less important than Pittsburgh in the United States or Manchester in England.

The Upper Silesian fields are said to be so vast that they contain more coal than all the coal fields of England.

The great Lorraine iron field

Now look again at the map of figure 103. Which iron field appears to be the most important? Is it not the Lorraine field, which, as you can see, stretches across the Franco-German border?

Before 1870 the Alsace and Lorraine regions were French; but when Bismarck conquered France in 1871, Germany demanded these two provinces.

There were many reasons why Germany wanted them, but one of the chief ones was the iron of Lorraine. Between Metz and Cologne are some of the best iron deposits in the world. Germany had quantities of coal, but she lacked iron. France had great deposits of iron, but lacked coal. Germany, the conqueror of France in 1871, added the French iron district to her empire and thus secured large quantities of the second of the two most important materials needed to make a powerful industrial nation.

Then began the great German production of iron and steel. In 1870 only 170,000 tons were manufactured. In 1910 the production had reached 14,000,000 tons. This was more than England was producing and three times as much as France produced.

The iron industry was not new in 1871. But it is said that more new iron companies were started in Prussia alone between 1871 and 1874 than during all the previous years of the 1800's.

Now do you understand why the region between the Ruhr valley and Lorraine is so important, and why much of Germany's industrial life centers there? This small region is a strip of land about 200 miles long and less than 100 miles wide. *Here coal and iron are found close together.* The iron can be carried cheaply to the coal fields, or the coal to the iron mines. This is an ideal arrangement for the manufacture of steel. Not in many places on the earth does this occur. Are the coal and the iron mines as close together in the United States as in Germany?

Let us look at this important Ruhr region.

How the Ruhr steel district looks to a traveler

The Ruhr is a small river on the western German frontier. At its source it is a clear stream flowing through the mining region of Germany into the Rhine. As it becomes larger it also becomes black and greasy, until the dirt of the coal dumps and the factories destroys its beauty completely.

With the aid of about a dozen locks the Ruhr River is navigable for about 46 miles. As the traveler approaches the mining and manufacturing district he sees countless barges passing on their way to France and Belgium. These canal barges are banked high with coal. The boats are as closely crowded together as junks on the Chinese rivers. There is no jamming and shouting on the water, however, for everything is arranged by signals. The ease with which this heavy traffic is handled is very similar to the ease with which trains are handled in a large American railroad station.

At night the factories of the Ruhr present a fascinating sight. The light of the flares from the blast furnaces makes great numbers of stacks, mills, wharves, and railway tracks stand out clearly. Here more than 4,000,000 people are toiling.

Chimneys split the sky line like the trunks of great dead trees. There is a deafening noise in the mills — the shriek of machinery and the hiss of white-hot metal, the blowing of whistles and the testing of new engines.

The plants of the Ruhr are gigantic affairs. So great are they that coal and iron go in at one end and come out at the other end as finished locomotives ready to be tested. There are many other steel products besides locomotives, but all come out ready to be sold. "Just like a Ford automobile!" you exclaim. Exactly.

Amid all this there is no sight more interesting than that of the furnaces. Masked men battle with hot iron. They must have their faces covered so as to protect them from the smoke, dust, heat, and fumes of the furnaces and the white-hot steel. Great blocks of hot metal, weighing 100 tons or more, are easily moved by cranes. The rollers seize the piece of metal, and in a few moments long rails that look like transparent red serpents writhe from the rollers.

To these workers the coal and iron of the Ruhr valley are life itself. They talk of coal constantly in the streets and in their homes. Coal is the key to Germany's industry.

After 1871 German inventors began to work out new ways of doing things by means of machines. People with money to invest saw opportunities for making profits by mass production, as manufacturers in England, France, and the United States had done. They put more and more money into machinery. They bought larger supplies of raw materials. They built more and greater factories.

How Science Helped German Industries

After 1871 the universities and engineering schools of Germany grew rapidly, for the government was encouraging young men of intelligence to devote themselves to scientific study and work. From these universities many of the young men went into the large industrial corporations, where they were able to use their special studies in the invention and improvement of machines. They learned better ways of manufacturing and transporting things, as well as how to make better machines and engines. But the chief thing they learned was to reduce waste as much as possible and to produce things cheaply.

German scientists were working on many of the same problems as were the scientists of the United States, Great Britain, and France. They studied how to remove the impurities from iron ore more cheaply and how to make fine grades of steel. They learned to combine chromium, manganese, tungsten, nickel, and other things with iron to make hard steel alloys.

Thus Germany's output of iron and steel became much greater than that of Great Britain or France. Since she could sell better steel for lower prices, she could take much of the trade away from them. For years the mark "Made in Germany" on fine instruments and machines was enough to make a purchaser decide in their favor.

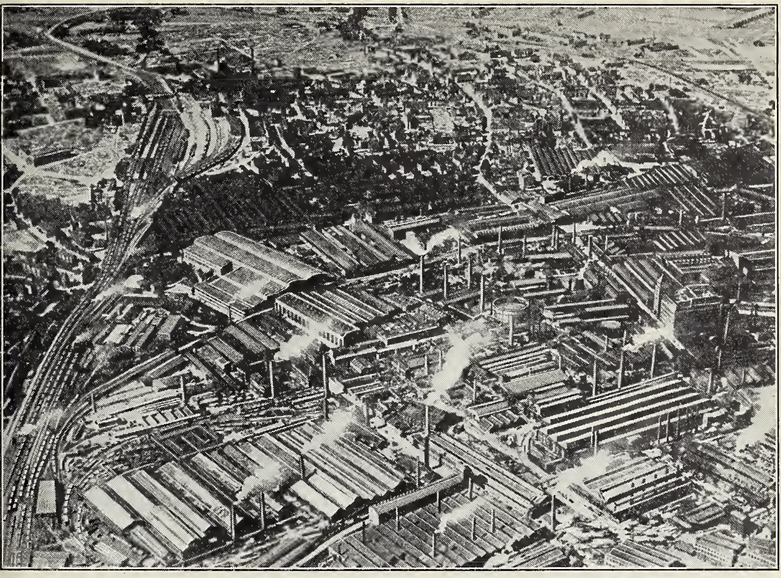
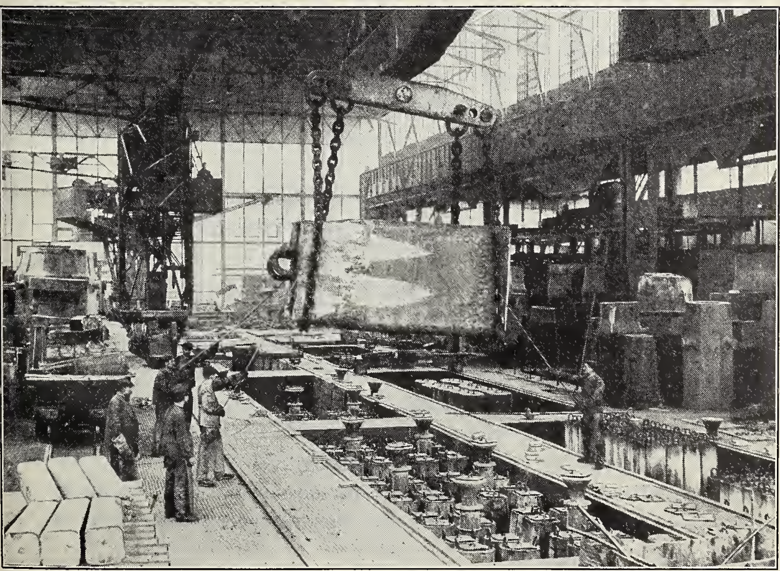


Fig. 106. Part of the great Krupp works at Essen. With its acres of factories, its dozens of smokestacks, and long lines of cars on its railroads it might be part of a city in the heart of America's steel-making district



Ewing Galloway

Fig. 107. An interior view of the Krupp works

The scientists of Germany improved almost every field of industry. They learned clever ways of making dyes from chemicals. For example, some German linens and cottons were dyed indigo blue. For many years this color could be obtained only from plants. Scientists discovered, however, that a better dye could be obtained from *coal tar*, an important by-product that had formerly been thrown away as useless.

Many other dyes were produced in this way by the German scientists. They made "fast" colors, which were manufactured cheaply in great quantities. This, of course, meant large sales. By 1900 four fifths of the world's dyestuffs were supplied by Germany.

It was discovered in Germany that even perfumes and flavorings could be made in chemical laboratories. A substitute for natural vanilla was one of these. A chemically made camphor was discovered, to serve as a substitute for Japanese camphor. Lemon flavoring with a real lemon taste was made without lemons.

These are only a few examples of the improvements made in industry by chemical study. As early as 1898 one factory in Germany employed 150 men to study chemistry in connection with the goods that the company was manufacturing. There were 75 of these men at work on improving the methods of the factory. The other 75 were engaged in making experiments. Perhaps only one of these experimenters would discover something of value; but the company felt that one such discovery was worth the salaries of 75 people.

In 1909 in the chemical industries of Germany there was one university-trained chemist to every 40 working people. That gives you some idea of how important the German manufacturers considered their scientists. The constant use of science in industry was a very great factor in making Germany an industrial nation.

The old industries rapidly changed into new ones. The German woolen and silk industries became more and more important. Electrical industries which made electric generators, cables, and other equipment grew tremendously.

You will gain some idea of how rapidly Germany was changing and becoming industrialized from the table at the top of page 215. It shows how machinery was replacing handwork in the textile industry in one city. This is typical of the changes that were occurring throughout the country in all industries.

Nevertheless, hand industries did not disappear entirely from Germany. Certain articles, such as fine cutlery, baskets, and pottery, were still made by hand.

Silk and Velvet Looms at Krefeld, Germany

Year	Power Looms	Hand Looms
1890 . . .	5400	22,500
1900 . . .	9700	7200
1909 . . .	9900	2700

So Germany Became the Center of European Land Trade

You have seen how favorable for trade was Germany's location. She was surrounded on all sides by other important European countries. Streams of trade flowed back and forth between Germany and Russia and between Germany and Serbia, Rumania, and other Balkan states. With those countries she traded coal, machinery, and manufactured goods for grain and other food. Another stream flowed to France, Belgium, and Italy. Germany did not buy so much food from these countries, but she sold large amounts of coal and exchanged her manufactured goods for theirs.

Before 1914 Germany was really the industrial center of Europe. But Europe proved too small a market. Germany broadened her trade to include the whole world. We shall turn in the next chapter to the story of Germany's race for colonies and world trade.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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CHAPTER X

GERMANY'S SMALL EMPIRE AND HER GREAT WORLD TRADE

As the factories of Germany needed more raw materials, the growing city population needed more food

You have learned that in the 150 years after Great Britain began machine manufacturing her empire grew enormously. British traders and British armies seized territories in the farthest corners of the earth. You have learned also that France became to some extent an industrial nation. She too reached out and seized colonies.

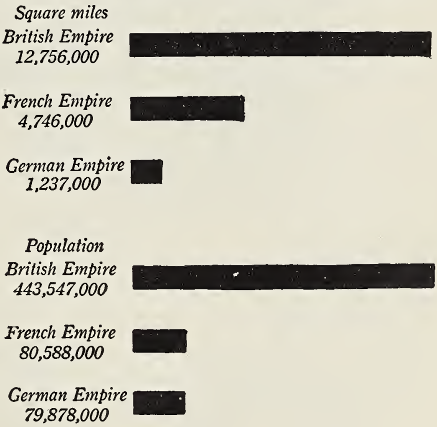


Fig. 108. A comparison of the area and population of the British, French, and German empires in 1914

So it was with Germany. When she took up machine manufacturing, she traded all round the world, and her government acquired colonies. But Germany was handicapped. She turned from handicrafts to machines much later than either France or England. As a result the story of Germany's empire-building begins later than that of those two countries.

It begins with the 1880's, less than 60 years ago. By the time Germany had begun to be an important trading nation the really desirable colonies had already been gobbled up. North America had been taken. There was little chance of settling in any part of Mexico, Central America, or South America; for in 1823, in the

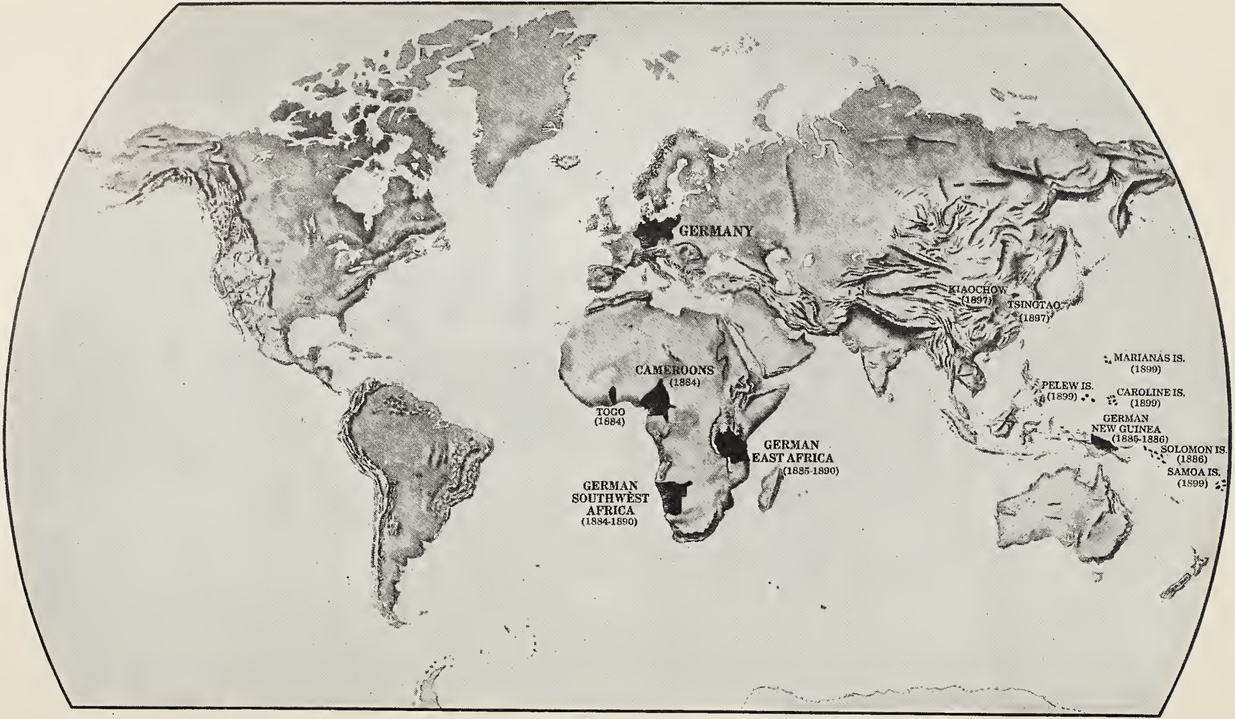

GERMANY
KIAOCHOW
(1897)
TSINGTAO
(1897)
MARIANAS IS.
(1899)
PELEW IS.
(1899)
CAROLINE IS.
(1899)
GERMAN
NEW GUINEA
(1885-1886)
SOLOMON IS.
(1886)
SAMOA IS.
(1899)
CAMEROONS
(1884)
TOGO
(1884)
GERMAN
EAST AFRICA
(1885-1890)
GERMAN
SOUTHWEST
AFRICA
(1884-1890)

FIG. 109. The German Empire in 1914

Monroe Doctrine, the United States had said to every European nation, "Hands off Latin America!" India was under British control. Indo-China was French. The best parts of Africa had gone into the hands of Great Britain and France.

However, there were some scattered spots on the globe into which German traders went and established business, and which the German government later took as colonies.

But, after all, although the "empire" she acquired was small, it *was* an empire.

Figure 108 shows just how this empire compared with those of Great Britain and France in 1914. How do the areas and populations of the three compare?

How Germany Got Colonies in Africa

Look at the map of figure 109 for the German possessions in Africa before the close of the World War. On the west coast of Africa Germany governed in 1914 the territories called Togo, the Cameroons, and German Southwest Africa. On the east coast she had a colony called German East Africa.

How did she get her colonies? The story is much the same as that for Great Britain. It is the story of daring German traders and missionaries who went into the region. It is the story of treaties made with native chiefs. Troubles arose over these treaties and other matters, and often German soldiers were needed to keep the natives in order. Step by step, in spite of the difficulties, the German government took control of the new lands and made them colonies of the German Empire. In this way Togo (1884), the Cameroons (1884), German Southwest Africa (1884–1890), and German East Africa (1885–1890) were taken over.

Let us study a little about each of these African colonies.

1. Togo

What sort of country do you imagine Togo to be? Find it on the map of figure 109. There are almost no harbors; hence shipping is difficult from Togo. Inland the region is hot, damp jungle land. Many people there have malaria, and on the whole the country is extremely uninviting.

In spite of these conditions, however, German traders went in and settled. First they set up their posts on a small island off the coast. From there they moved inland, after treaties had been made with the native chiefs. By these treaties they gained more and more territory. The land bordering on Togo was under the control of France and Great Britain. Finally, in 1899, Germany made an agreement with these countries, which settled the boundaries of her new colony.

Togo was small, but Germany was out to make the most of it. The country had valuable products; for example, palm oil and fine woods. By sending steamships to call regularly at Togo, German traders took a large palm-oil supply out of the colony. Mahogany forests were growing in Togo, and German foresters soon developed them and increased the supply of mahogany trees. These furnished very valuable wood.

2. The Cameroons

Second, consider the colony of the Cameroons (see map of figure 108). The Germans settled there at the same time that they were settling in Togo. After much bargaining and discussion among Germany, Great Britain, and France it was finally agreed that Germany might add this colony to her empire.

The products which tempted the German traders in the Cameroons were mahogany, ebony, ivory, and rubber — especially rubber. German business men developed good rubber plantations from the wild rubber trees of the Cameroons. They cultivated cacao plantations also, from which they made a good profit.

There was another special reason why German business men were anxious to own lands in the tropics. They wanted to grow cotton in their own empire, so that the textile industries at home would not have to depend on getting supplies of it from the United States and other countries. They felt that they could raise it themselves much more cheaply than they could buy it from others.

So the Germans tried to raise cotton in the Cameroons. This plan was not very successful, however, for the raising of a good cotton crop depends on a constant supply of laborers. The Germans in Africa had to use the natives to pick and clean the cotton.

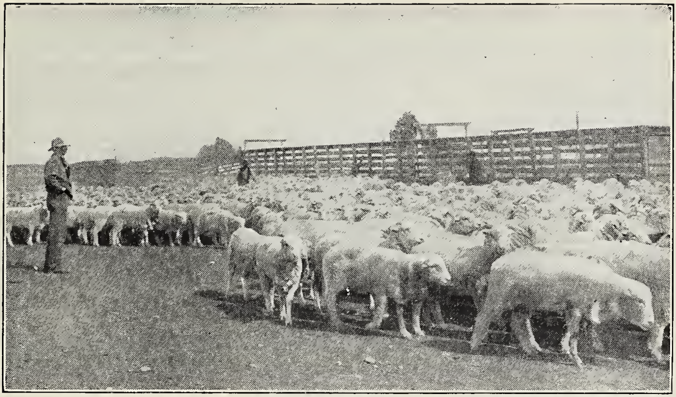


FIG. 110. A sheep ranch in German Southwest Africa. Mining and sheep-raising were two of the most important industries in this part of the German Empire

That caused great difficulties, for African natives were not accustomed to working hard in the hot sun. Life in the tropical climate had always been easy for them. They needed almost no clothing, and food and shelter could be easily obtained; so a very little hunting and planting satisfied all their needs.

You can understand, therefore, that the natives were not happy working all day in the hot sun to raise cotton crops for Germans. Even when they were forced to work they moved very slowly and took it as easy as they could.

There are many stories of German cruelty in forcing these black men to labor for them. We must not forget, however, that other Europeans — the British, the French, and the Belgians — were as guilty as the Germans of forcing black men to do their work in Africa. They all settled on the land of the natives and sometimes forced them to do their bidding. Frequently they paid no attention at all to the rights and protests of the native peoples.

3. German Southwest Africa — an example of the way in which colonial wars have affected the native populations

In 1883 a German merchant from the city of Bremen went to the southwest coast of Africa to trade. Other traders followed him. They too took the land of the natives and opened trading posts. Before long German soldiers went there and conquered the territory. By 1890 all of Africa marked "German Southwest Africa" on the map had been claimed by Germany except one small port.

This land was good for grazing; so the German government took sheep there from Australia. German settlers started cattle ranches and ostrich farms as well. Copper and tin were also found in this region, and mines were opened and operated by German methods. The ore was smelted at the mine by the aid of electrical power.

Diamond mines, however, were really the most valuable holdings. They were first discovered in 1908. From that time on German companies made very good profits from careful mining.

Germany developed her colonies in many ways. She made it easier for people to travel into the interior by building good roads and railways and better hotels. Scientists were put in charge of developing the forests of her colonies. In these ways she made her possessions pay good profits, but her rule of the natives was often very cruel.

The Hottentots and the Ovaherero, two groups of natives in the interior of southwest Africa, objected to the changes made by Germany in their country. They did not want railroads. They did not want to pay taxes. They did not want to have Germans dig diamonds in their territories. So they made protests, and finally killed some of the white settlers.

Immediately soldiers from Germany were sent to Africa, and a war began which lasted three years. In the end many tribesmen were killed and many more were made slaves.

4. German East Africa

The story of the founding of German East Africa is a most interesting one. Early in 1884 a society for German colonization was founded in Germany. Dr. Karl Peters was its president, and he and his friends were eager to extend Germany's empire in Africa. In November of 1884 Dr. Peters and two other young Germans, dressed as mechanics, arrived as deck passengers at Zanzibar, on the east coast of Africa. With them they had a number of German flags and a supply of blank treaty papers. They entered the mainland and immediately proceeded to meet with various native chiefs of the region. By February, 1885, treaties had been made with these chiefs and their territories were under the protection of the German government and flying the German flag.

As you will read later, Germany was forced to surrender her African colonies by the Treaty of Versailles, signed after the World War. Former German East Africa was subdivided, part (now called Tanganyika Territory) going to Great Britain, part (Ruanda and Urandi) to Belgium, and part (Kionga Triangle) to Portugal. German Southwest Africa became part of the Union of South Africa. Togo and the Cameroons were divided between Great Britain and France.

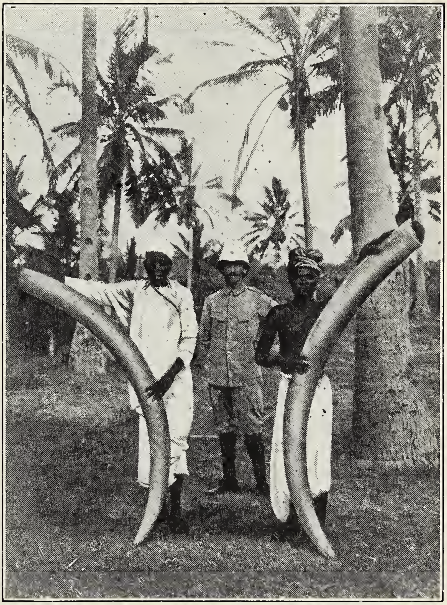


Fig. 111. This scene in former German East Africa helps one to understand why colonies of this kind were valuable. Here we see palms, five-year-old rubber trees, and great elephant tusks. Rubber and ivory are both valuable products. (Reproduced by permission of the Philadelphia Commercial Museum)

5. What Germany took in far-off China

Not only did Germany secure lands in Africa; she extended her empire to include parts of Asia as well.

As early as the 1880's German business men had been buying and selling goods in China. Finally, with the aid of their government, they took land as well as trade from the Chinese. Look on the map of figure 109 and find Kiaochow and Tsingtao. The Shantung peninsula, on which these two cities lie, is rich in coal and iron and is in a favorable position for sea trade.

The way in which Germany gained control of Shantung will tell you the manner in which other European countries secured control of other territories in China. It illustrates how they obtained from the Chinese government opportunities for trading.

In the 1890's there were many German missionaries in China, who were trying to convert the Chinese people to Christianity. In 1897, in a dispute, some Chinese killed two of them. The German government demanded from the Chinese government a large payment for the lives of these two people and insisted that the payment be made in land. Thus China was forced to lease Kiaochow to Germany for 99 years.

Since the bay of Kiaochow is a good place for foreign ships to land, the Germans immediately began to develop a port there from which they could ship the rich products of the Shantung peninsula. The port city, Tsingtao, was made a naval station for the German Pacific fleet. Soon German barracks with red-tiled roofs were built to house German soldiers, and great forts with powerful German guns protected the harbor mouth.

Germany also received other business privileges from the Chinese government. She was allowed to work the mines and to construct railway lines in the Shantung peninsula. In 1890 two German trading companies were formed. These companies supplied the money needed to do this work. They knew that big profits could be made from Shantung's valuable coal and iron deposits. The new railways leading to the port of Tsingtao carried ore to German ships. Before 1914 this German colony was bringing a very large income to the men who controlled it.

6. Germany also took islands in the paths of ocean trade

As German trade grew in the Far East the empire spread into the Pacific Ocean. Germany followed the example of Great Britain and France in taking small islands to be used as supply and fuel stations for her trading ships and naval vessels.

In 1884 she took a section of northeast New Guinea. In 1886 she took the Solomon Islands. Then in 1899 she took two of the largest islands of the Samoan group. These regions total a little over 95,000 square miles and had a population of only about 547,000 native people in 1913.

In 1899 she bought from Spain the Caroline Islands, the Marianas Islands, and the Pelew Islands. These small possessions total less than 1000 square miles and had a native population of only 60,000 people in 1913.

For the location of these many islands see figure 109.

Why did Germany want so many small islands? Chiefly because her ships needed coaling stations in the seas. In the later 1800's all the industrial nations enlarged their navies to protect their trade and their colonies. In addition Germany used these islands as bases of communication. Later some of them were used as wireless stations.

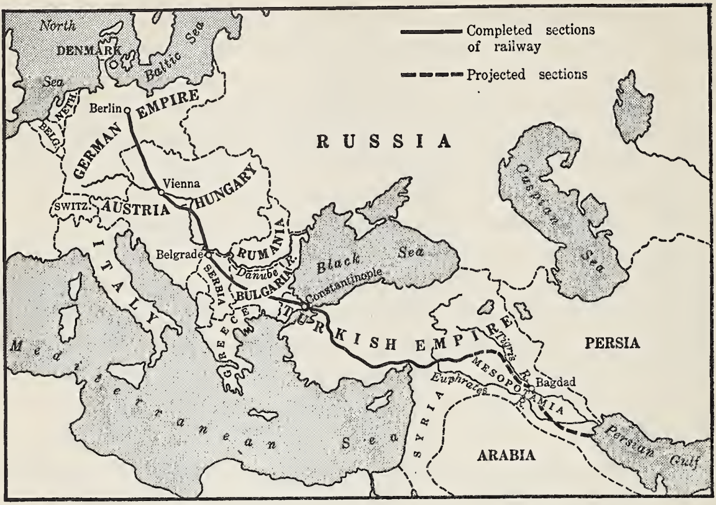
Besides Acquiring an Empire, Germany Was Also Extending Her Trade in Turkey and Neighboring Lands

Find Turkey, Persia, Mesopotamia, Syria, and Arabia on the map of figure 112. This region is generally referred to as the Near East. Here German statesmen and business men saw marvelous opportunities for trade.

In Turkey and the neighboring regions are important coal and iron deposits. There are forests with great growths of valuable timber.

The soil of the Mesopotamian valley, especially near the Tigris and Euphrates rivers, is rich and fertile. If properly irrigated, it could be made to bear crops in abundance. In the early 1900's European newspapers carried the headline "More Oil Found in Mesopotamia!" Immediately the oil men of every country wanted to secure control of trade in that region.

From the early 1900's, then, Germans began to see the value of these lands. German agricultural scientists found that the soil could be irrigated and made to grow fine crops of wheat and cotton. The eyes of German manufacturers were open too. They saw that mines could be made to produce much coal and iron for manufacturing. They knew also that factories could be built to turn the raw materials iron and cotton into the finished products steel and cloth. In addition, the rather scanty harbors



Completed sections of railway
Projected sections
North Sea
DENMARK
Baltic Sea
NETH.
BELG.
Berlin
GERMAN EMPIRE
RUSSIA
Vienna
HUNGARY
SWITZ.
AUSTRIA
ITALY
Belgrade
SERBIA
RUMANIA
Danube R.
BULGARIA
Black Sea
Constantinople
Caspian Sea
TURKISH EMPIRE
PERSIA
Tigris R.
MESOPOTAMIA
Bagdad
Euphrates R.
GREECE
SYRIA
ARABIA
Mediterranean Sea
Persian Gulf

FIG. 112. So anxious was Germany to secure the trade of the Near East that she planned and partly completed the Berlin to Bagdad Railroad indicated on this map

along the coast of these countries could be transformed into busy shipping ports. And, finally, if railroads were built to connect these ports with other parts of western Asia and with Europe, vast wealth could be obtained from this region.

Without doubt the millions of people in the Near East could be persuaded to buy the German cotton goods, which could be manufactured very cheaply in that region. The native people could be hired to work in the new factories at much less expense than laborers could be hired for factories in Germany. Farm machinery could be manufactured there and used on the farms of the region.

Not only would these changes in the Near East benefit the wealthy German traders; they would also supply a new market for German machinery, railroad equipment, clothing, and building materials.

Germany's efficient ways of selling goods

The British people are often called a "nation of shopkeepers," that is to say, traders. Of course every industrial nation is that;

but the Germans, although they started later, beat the British and other traders at their own game. They took orders for goods right in the cities of their rivals — France and England — and in the neighboring countries as well. They traveled out to China, India, North America, South America, and Africa. They sold German goods wherever they went. Before 1900 the British and French traders found their trade disappearing from under their very noses. This was true of trade inside the other European countries as well as that with far-off colonies.

It is not difficult to understand why the shopkeeper bought German goods. They were cheaper. They had been made from models which the shopkeeper had furnished the German manufacturers, and they were decorated with scenes dear to the hearts of the buyers.

A historian who studied this German world trade very carefully says:

> Articles "made in Germany" . . . have driven other goods from many fields. One sees this right in Europe. . . . In my home in Paris the elevator is German, the electrical fixtures are German, the range in my kitchen is German, the best lamps for lighting are German. . . . My cutlery is German, my silverware is German, the chairs in my dining room are German, the mirror in my bathroom is German, some of my food products are German, and practically all of the patented drugs and some of the toilet goods are German. . . . I was not aware of the fact that I was buying German things. They sold themselves.[1]

So Germany's World Trade Developed Rapidly after 1890

As German industries grew German goods were made to compete with the finest machine-made goods of other countries. By 1900 German factories were making cloth, tools, machines, dyes, cutlery, silverware, furniture, and countless other products of high quality. These they manufactured more cheaply and sold more cheaply than did the British, the French, or the Americans.

In addition, Germany was in an unusually favorable location for trade with the entire world by sea as well as by land. Look at the colored map of Europe following page 336. Notice the long indented coast line of Germany with its many harbors, especially the great ones of Hamburg and Bremen. These ports are near the heavy bands of ocean traffic, and German harbors are among the important points on the paths of ocean commerce.

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[1] Herbert A. Gibbons, *The New Map of Europe*, pp. 49–50. The Century Company, New York, 1914.

It was only natural, therefore, that Germany should also develop a great shipbuilding industry. This began about 1884, and by 1905 Germany was well able to compete with England in shipbuilding as well as in her ocean trade (see figures 114 and 115).

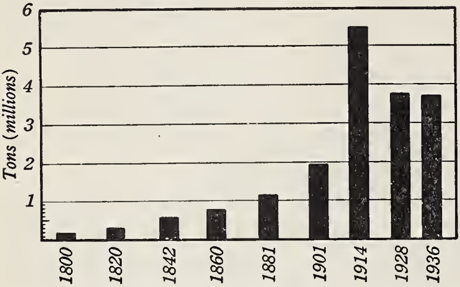


Fig. 113. The shipping tonnage of Germany's merchant marine, 1800–1936. Notice the remarkable increase between 1901 and 1914

As the German merchant marine grew rapidly, Germany's trade in the Atlantic, in the Pacific, through the Suez, and around Cape Horn increased at an astonishing pace. That can be shown by the fact that in 1910 Germany bought from other countries and sold to them three times as much as she did in 1870. The graph of figure 113 shows how she increased her merchant marine to take care of this rapidly growing trade. Though Germany's colonial empire was insignificant in size compared with that of England, she had built up a vast world trade. She had shown that trade could be secured by efficient methods of manufacturing and clever salesmanship. She had demonstrated that to build a world trade an industrial country need not build up a great empire if she had sufficient supplies of coal and iron. Her trade spanned the globe in 40 years largely by a peaceful conquest, a conquest achieved by means of new and better methods of manufacturing and selling goods. In 1914 Germany was considered a world power and a great business rival of Great Britain and France.

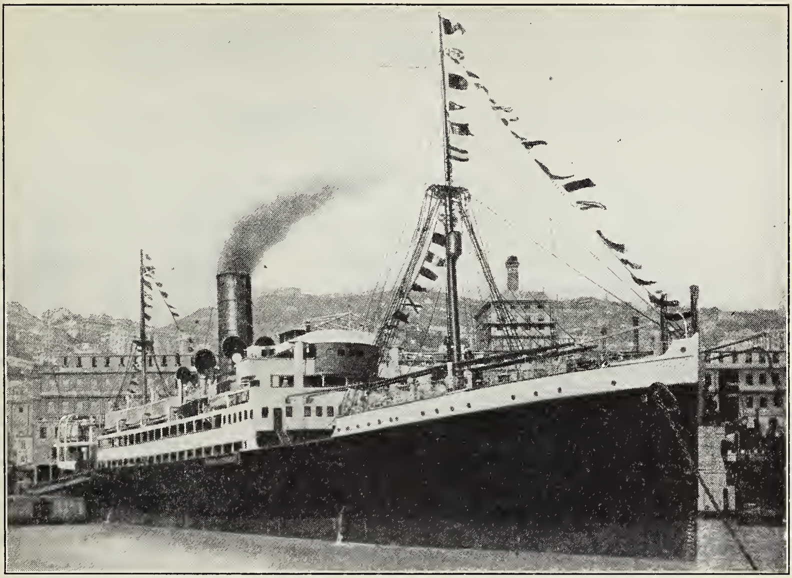
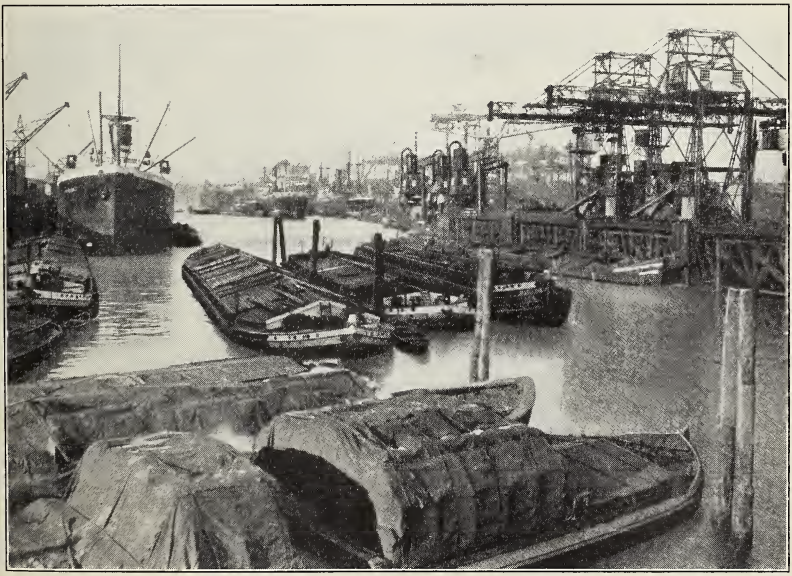


Fig. 114. By 1914 German ships like this visited all the large ports of the world, exchanging manufactured goods largely for raw materials and some manufactured goods



Ewing Galloway

Fig. 115. The increase in shipping in the single harbor of Hamburg is typical of what was happening all over the German Empire. Hamburg grew so rapidly as a great world port that in 1910 the entire merchant marine of France was less than that of Hamburg alone

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UNIT V

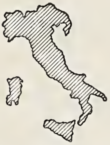
THE CHANGING AGRICULTURAL COUNTRIES OF EUROPE

In the preceding chapters we have studied the "big three" of the leading countries of Europe — Great Britain, France, and Germany. These countries were the first to turn to machine manufacturing and, like the United States, to become known as industrial *countries. They form only a small part of Europe, however. Their areas combined — about 490,000 square miles — make up only about one eighth of the land area of that continent, and their 154,000,000 people make up about a third of the population. Nevertheless, just before the World War these countries were three of the leading powers of the world. Each had built up a thriving world trade and a world empire.* These small countries actually governed one half of the earth's surface and one third of its people.

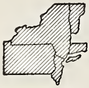
But Europe now contains at least 26 countries, — there are several small areas that are not included in this number, — and so more than 20 other countries have not been considered. Did all these change, as the big three *did, from small medieval states to strong industrial countries?*

There is not space in this book to tell the chief characteristics and to outline the history of so many different lands and peoples. We should remember, however, that each country differs from its neighbors in many ways; for example, in customs, in history, and in language. Although these other countries have not played such an important part in the modern world as have Great Britain, France, and Germany, each is important and interesting in itself. They are all independent, and the people of each one love their country and are proud of it. In other books of this series you will study some of the more important ones.

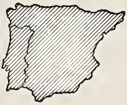
In the four chapters of Unit V we shall study only about Russia, a large country, and the four small countries of Denmark, Norway, Sweden, and Italy.



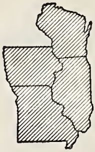
Italy
Population, 41,168,000



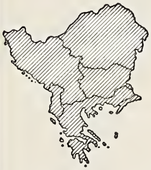
New York, Pennsylvania,
New Jersey, Vermont,
Connecticut
Population, 28,227,000



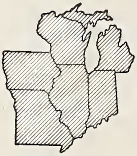
Spain, Portugal
Population, 28,636,000



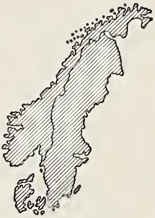
Wisconsin, Illinois, Iowa,
Missouri
Population, 16,670,000



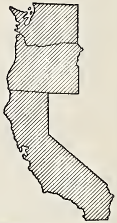
Yugoslavia,
Rumania, Bulgaria,
Turkey in Europe,
Albania, Greece
Population, 45,325,000



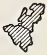
Wisconsin, Michigan, Iowa,
Missouri, Illinois, Indiana
Population, 24,751,000



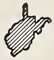
Norway, Sweden,
Denmark
Population, 12,350,000



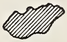
Washington, Oregon,
California
Population, 8,194,000



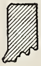
Belgium, Netherlands
Population, 15,726,000



West Virginia
Population, 1,729,000

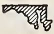


Hungary
Population, 8,944,000



Indiana.
Population, 3,474,000

Switzerland
Population, 3,018,500



Maryland
Population, 1,632,000

COUNTRIES OF EUROPE GROUPED ACCORDING TO THE EXTENT TO WHICH THEY HAVE BEEN INDUSTRIALIZED

I. The Powerful and Highly Industrialized Countries

1. Great Britain
2. France
3. Germany

II. The Partially Industrialized Countries

4. Belgium
5. Italy
6. Hungary
7. Switzerland
8. Netherlands
9. Ireland (Eire)

III. Agricultural Countries with Little Machine Manufacturing

A. The countries of the Iberian Peninsula

10. Spain
11. Portugal

B. The countries of the Balkan Peninsula

12. Yugoslavia
13. Albania
14. Greece
15. Turkey in Europe
16. Bulgaria
17. Rumania

C. The Scandinavian Countries

18. Denmark
19. Sweden
20. Norway

D. The Baltic Countries

21. Poland
22. Lithuania
23. Latvia
24. Estonia
25. Finland

IV. A Powerful Agricultural Country Swiftly being made into an Industrial Country

26. Russia

I. THE EXTENT TO WHICH EUROPEAN COUNTRIES ARE INDUSTRIAL

The chart gives the names of the 26 countries divided into four groups: first, powerful industrial countries; second, partially industrialized countries; third, small agricultural countries with little machine manufacturing; fourth, a powerful agricultural country, Russia, which is swiftly being transformed into one of the world's most powerful industrial countries.

We have grouped the countries of Europe so as to show whether or not they have taken up machine manufacturing to any great extent. They have been grouped in this way to help you to think clearly about them. There are so many countries, each with its own characteristics, that almost no person can really understand them all. It will help you to understand them, however, if you remember the likenesses and differences among them.

The chart reminds us, first, of what we have already learned, that in three countries — Great Britain, France, and Germany — the use of power-driven machines, railways, etc. is widespread.

Second, that six countries have begun to manufacture with machines in their larger towns and cities and to depend upon the exchange of food, raw materials, and manufactured goods with other countries. Belgium has done this much more than any of the others.

Third, that sixteen of the European countries are small farming-handicraft countries that make very little use of machine manufacturing.

Fourth, that there is a huge agricultural country, Russia, in which today goods are manufactured in huge factories, enormous amounts of coal and iron are mined, oil is produced, cotton is raised and manufactured into cloth, farming is done by machines, and, in general, the whole country is being made over.

Try to think of the countries of Europe, therefore, in terms of the degree to which they have become industrialized.

II. The Area of the Less Powerful European Countries

It is said that an American railroad conductor used to poke fun at the smallness of Rhode Island by announcing, as his train stopped at Providence: "Rhode Island! Rhode Island! Leave by the middle car!" The joke applies to many European countries also. Some are so small that it seems as though a train would almost reach across them!

Most of the countries of Europe are, indeed, no larger than the separate states of the United States. (1) Belgium and the Netherlands together are only as large as our state of West Virginia. (2) Switzerland matches Maryland in area. (3) Italy, one of the larger countries, is about as large as the combined areas of the five states of New York, New Jersey, Pennsylvania, Vermont, and Connecticut. (4) The six Balkan countries taken together have an area equal to the combined areas of the six Middle Western states of Michigan, Wisconsin, Indiana, Illinois, Iowa, and

Missouri. (5) Spain and Portugal together are about the size of Iowa, Missouri, Wisconsin, and Illinois. (6) Norway, Sweden, and Denmark combined are about the size of our three Pacific-coast states of Washington, Oregon, and California. (7) Hungary is about the size of Indiana.

III. The Population of the Less Powerful European Countries

Even though the European countries are small in area, they are densely populated, on an average three times as densely populated as our states. Europe, with one third more land area than the United States, has more than three times as many people. Some of the countries have twenty times as many people to the square mile as do our typical states. People are crowded together indeed in Europe.

One seventh-grade pupil, after studying the map of Europe and comparing European countries with our states, exclaimed: "The United States of Europe! That is what they look like. They ought to combine and form one great country." That is exactly the opinion of some excellent students of European civilization. Although most of the countries of Europe belong to the League of Nations, the plan has been proposed in books and magazines and discussed in debates that the nations of Europe should unite into a closer union, forming the "United States of Europe." Some people think that at a future time such a result might be brought about.

IV. We Shall Study Carefully Three Groups of European Agricultural Countries

To carry out the plan of our work in the social studies, we shall turn in Chapters XI, XII, and XIII to Russia and the three Scandinavian countries, Denmark, Norway, and Sweden. In Chapter XIV we shall turn to Italy.

Thus at the completion of Chapter XIV we shall have studied carefully 8 of the 26 countries of Europe:

1. Three great industrial countries — Great Britain, France, and Germany.
2. Two agricultural countries that are changing quickly into industrial ones — Russia and Italy.
3. Three smaller agricultural countries with little machine manufacturing — Denmark, Norway, and Sweden.

V. SUGGESTIONS CONCERNING YOUR FURTHER STUDY OF THE SMALL AGRICULTURAL COUNTRIES OF EUROPE

If there were time, we would make equally careful studies of Spain, Portugal, Rumania, and the other countries of Europe. Because there is not time to do this carefully, we suggest that you carry on the study of those countries by dividing the class into committees. Have each committee make a study and a report of one group of countries. (See the *Workbook for Changing Countries and Changing Peoples*, Problem XA.)

In doing so, look for the ways in which these smaller European countries are alike. Note, for example, how few of them have really taken up machine manufacturing to any large extent. Note which ones have large deposits of coal and other fuel resources. Note how much iron ore is to be found within their boundaries. Ask whether each one has a large merchant marine, whether it trades much with countries outside of Europe, and whether it controls colonies. Some of these smaller countries do have many merchant vessels and fairly large navies; several control colonies in Africa and in Asia. Facts for some of the countries will be found in the appendix.

In making your reports upon various countries, note especially the extent to which their "geography" has determined their occupations, the ways in which they work and play. For example, inquire concerning the "lay of the land," rainfall and temperature, fertility of the soil, rivers and other means of transportation, forests and other examples of vegetation. Have each committee make a brief report also on the history of each country or group of countries.

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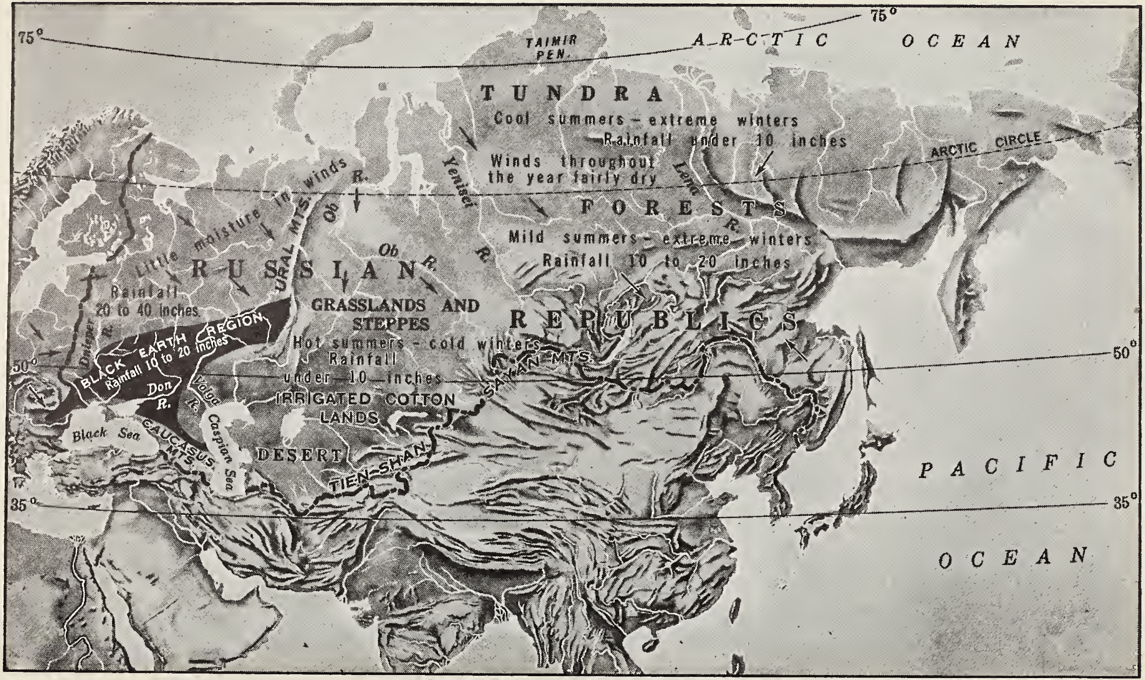
75°
75°
TAIMIR PEN.
ARCTIC OCEAN
TUNDRA
Cool summers – extreme winters
Rainfall under 10 inches
Winds throughout the year fairly dry
ARCTIC CIRCLE
Yenisei R.
Lena R.
Ob R.
Ob R.
FORESTS
Mild summers – extreme winters
Rainfall 10 to 20 inches
Little moisture in winds
URAL MTS.
RUSSIAN REPUBLICS
Rainfall 20 to 40 inches
GRASSLANDS AND STEPPES
Hot summers – cold winters
Rainfall under 10 inches
BLACK EARTH REGION
Rainfall 10 to 20 inches
Dnieper R.
Don R.
Volga R.
50°
50°
SAYAN MTS.
IRRIGATED COTTON LANDS
Black Sea
CAUCASUS MTS.
Caspian Sea
DESERT
TIEN-SHAN
PACIFIC OCEAN
35°
35°

FIG. 116. Many different kinds of land and climate make up the vast Russian Republic

CHAPTER XI

OLD RUSSIA: A VAST EMPIRE PEOPLED BY PEASANTS

A Russian writer of the 1800's once said of his country, "Yes, indeed, I both love and hate my Russia, my strange, sweet, nasty, precious country."

He pictured his homeland as neither European nor Asiatic, a great borderland between the East and the West. To the European or American visitor at that time it was like a country of medieval Europe. The people in peasant smocks tilled their fields with old-fashioned tools. They made pottery, toys, rugs, and embroidery which were not like those of any other country.

The Russian peasants have always been strong, rugged, hardy people. Many of them are dark and as straight-haired as the Chinese. That is because years ago Asiatic peoples conquered the Russians, settled the land, and thus left their traces among the people. At that time western Europeans knew Russia only as a vast, silent, mysterious land.

Today, however, all the world talks of Russia, but few people understand her.

How Large Is Russia?

Russia[1] is a tremendous inland empire, larger than any other country in the world. In fact, it is the only country in the world that stretches across one continent and a long distance into another. It is so large that we have been used to speaking of "Russia in Europe" and "Russia in Asia."

Russia is

1. Nearly 20 times the size of France and Germany combined.
2. Over twice the size of Europe without Russia.
3. Nearly three times the size of the United States.
4. Nearly twice the size of China.
5. About one seventh of the total land area of the earth.

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[1] In this book the word "Russia" is used to mean the entire Union of Soviet Socialist Republics.

Not only is Russia large in territory; it is large in population also. *It has more people than Great Britain, France, and Germany combined.* The graph below shows how these countries compare with Russia in area and population.

How Did the Russian Empire Become So Large?

To answer that question we shall turn the history clock back several hundred years. Long ago in the ninth century, when most of the people of western Europe and England were settling down to their manor life, the people whose descendants are now called Russians were living in the plains through which the Dnieper River runs. There were not so very many of them, and they had settled in but one fifth of all the territory that is now European Russia. They were primitive people, who farmed little plots of ground with crude implements.

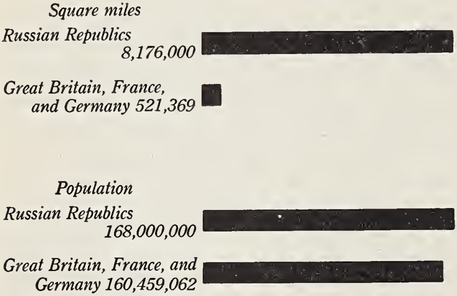

FIG. 117. These graphs show the area (top) and the population (bottom) of the Russian Republics as compared with Great Britain, France, and Germany

Around them were other primitive tribes — forest people. To the east were the tribes of the vast Asiatic plains. On the west were "German" people, who also lived in tribes. To the north were the Vikings — the sea rovers. At the south was Constantinople, which we now call Istanbul. This rich city, capital of all that remained of the Roman Empire, was the home of many races of people.

The early Russians knew little about their neighbors. Of course there were no railroads, telephones, telegraphs, or wireless. There were not even good roads. So, for hundreds of years, these people lived with very little knowledge of what was going on throughout the rest of Europe.

About 1000 Years Ago Armed Norse Traders Conquered and Ruled These Simple People

In the Far North on the Scandinavian peninsula lived a warlike and roving people called the Norsemen. You have probably heard of their conquest of England and perhaps of their conquests in the lands which are now France and Germany. They even crossed the Atlantic and explored Greenland and the northeast coast of America long before Columbus.

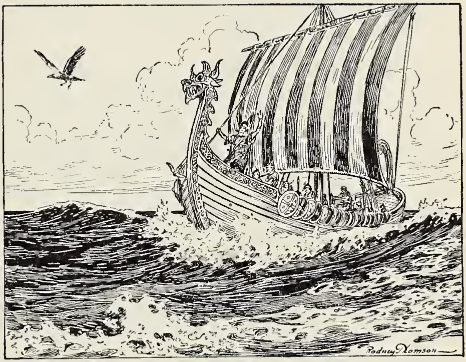

Fig. 118. The Norsemen, sailing from the Scandinavian peninsula through the Baltic, discovered a trade route through eastern Europe to Constantinople

Many of the bold Norsemen were traders, carrying goods to and from far parts of the world. Like the peoples of southern Europe they traded with the merchants of Asia. In their travels they found an excellent way of going from their native Scandinavia to Constantinople, where they could trade their goods for the riches of Asia. They sailed across the Baltic Sea, through the Neva River, up to Lake Ladoga. From there they sailed up the Volkhov and Lovat rivers as far as ships could go. After crossing by land to the Dnieper River, they sailed to the Black Sea, and then on to Constantinople. This course, or *trade route*, as we call it, ran almost north and South through the eastern plains of Europe (see map of figure 146).

A trade center, Kiev, grew up on this water route

The Norsemen even built towns along the rivers. The most important of these was Kiev. Find it on the Dnieper River (figure 146), about halfway between Moscow and the Black Sea. You see that it is on an almost straight line from Scandinavia and Lake Ladoga to Constantinople. During the 800's the Norse princes of Kiev became the rulers of this great territory.

The region around Kiev was a troublesome place. Roving warriors frequently gathered there, and a great deal of fighting went on to gain control of Kiev. Moreover, everybody wanted to own the rich farming land along the banks of the Dnieper. As a result native peoples too were constantly fighting among themselves to gain possession of the region.

Then, about 1200, a race of fierce warriors called Mongols, or Tatars, stormed down upon Kiev. They had lived far to the east of Russia, in southern portions of present-day Siberia and in the northern part of the present Chinese Republic. During the years following 1200 these people set out to conquer the world. They took China, raided India and Persia, and then spread through all of Russia, Hungary, and the Balkan countries. The emperor of the Tatars, called the Grand Khan, forced all conquered peoples to pay him rich tribute and heavy taxes. His soldiers were cruel and bloodthirsty.

To get away from these Tatars the princes of Kiev and others of the Russians moved away from this district during the years of invasion. North of Kiev was a place surrounded by swamps and by forests — a place harder to reach than the rich valley of the Dnieper. Find this region around Moscow, on the map of figure 119. Many people went there.

Moscow became the leading city of Russia

Here they were not in as good a position for trade with the Black Sea as they had been, and their farm land was not so rich; but they were quite free from the control of the Tatars.

While other cities were being conquered by the Tatars, Moscow, in the middle of swamps and forests, escaped many of the bloody invasions and continued to grow. So powerful did the Muscovites (men of Moscow) become that after about 250 years they were able to defeat the Tatars and drive them back to Asia.

Before the Tatars had been driven away the princes of Moscow began collecting the various regions of Russia under their government. Their position in the center of a great country was now a help to them in adding to their possessions on all sides. Although not so well located for trade as Kiev, Moscow nevertheless had some advantages. It was on a tributary of the Volga, which led to the Caspian Sea, and it was not far from the headwaters of the Don and Dnieper rivers, which led to the Black Sea.

Moreover, by this time rough overland roads were being built in Russia; and the Muscovites saw to it that these roads went to Moscow; for that meant more trade for them. The city grew and grew, and the princes of Moscow became wealthy and powerful.

There came a time late in the 1400's when a prince of Moscow set himself up as the Czar (emperor) of all Russia. From then until 1917 the rulers of Russia were called Czars (or Tsars). These men had almost complete control of the Russian government and either killed or exiled anyone who opposed them. For over 400 years these rulers absolutely controlled the lives of the people.

After 1500 the Russian territory spread until it comprised a huge empire

When the Muscovite princes turned their attention to building up a more powerful empire, did they use the same methods as those used by Great Britain, France, and Germany? Did they send out ships and traders to far parts of the earth and bring other peoples under the rule of the home country?

No. The Russian Empire grew from a little beginning by gradually taking in surrounding territory. Professor Gibbons tells a story which illustrates how it was done.

"'Papa,' said my eldest daughter, her eyes wide with enthusiasm, 'I have found out how to make a big snowball, the kind of snowball that gets so large you have to ask other kids to help you roll it.'

"'Found out? Was there anything to find out about making a snowball? Didn't you just make it?'

"'Oh, no,' she explained. 'But I know now. You mustn't try to bring the snow to the ball. You have to start in one place and keep rolling all around, and that's the way your snowball gets big.'"[1]

The Russian Empire grew somewhat like the little girl's snowball. The real starting-point was Moscow. During a short period of peace with their Tatar rulers the Moscow princes began to subdue peasant peoples in the regions around Moscow. Later, after getting rid of their Mongol conquerors, they sent their bands of warriors farther and farther away from the home city to conquer new groups. Before 1700 they had included within the empire of Russia practically all the peoples of eastern Europe.

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[1] Herbert A. Gibbons, *The New Map of Asia*, p. 308. The Century Company, New York, 1919.

FOR 400 YEARS RUSSIA'S RULERS TRIED TO EXTEND THE EMPIRE IN ALL DIRECTIONS TOWARD THE SEAS

From the time when the primitive Europeans lived in eastern Europe until after 1700 *Russia had no ocean ports* except those far to the north on the White Sea. Because these were frozen over for eight months of the year, it was difficult for Russian people to trade with other countries by ocean travel.

More than all else, the Russians wanted ports on the southern seas. *To gain "warm water" ports became the strongest desire of the Russian Czars.* They carried on wars with the people around them year after year, century after century, in order to gain them. The map of figure 119 shows how the boundaries of Russia were extended from 1500 to 1900 toward bodies of water which were not frozen over most of the year.

1. First the Czars pushed their empire west to the Baltic Sea, 1600–1721

The northern Baltic is filled with floating ice in winter, but still it is open for a longer period than the White Sea. Russia, therefore, wanted ports on the Baltic because she was very envious of the valuable trade which went on there. However, Poland controlled these ports.

For over 100 years after 1600 the Russian Czars tried to get control of ports owned by Poland on the Baltic Sea. Finally, by 1721, Peter the Great, one of the most famous of the Czars, had secured a strip of land along the eastern shore of the Baltic Sea. This gave the Russian Czars their first coast line south of the White Sea.

During this time the traders of England and France had been going from their ports to many other parts of Europe, to the Americas, and to the Far East building up empires overseas. But the Russians were building their empire differently, slowly

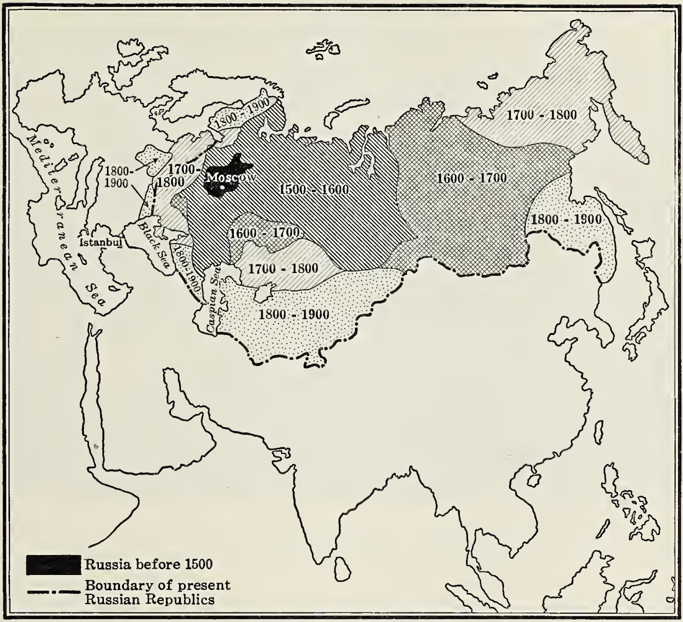
1800 - 1900
1700 - 1800
1800-1900
1700-1800
Moscow
1500 - 1600
1600 - 1700
1800 - 1900
Mediterranean Sea
Istanbul
Black Sea
1800 - 1900
1600 - 1700
1700 - 1800
Caspian Sea
1800 - 1900
Russia before 1500
Boundary of present Russian Republics

Fig. 119. From a small beginning at Moscow, Russia spread in all directions. The dates show the years when these new lands became part of Russia

taking in more and more territory around Moscow and trying to make Russia the center of trade between Asia and Europe.

Peter the Great was a very ambitious ruler. He planned to join the Dvina and Volga rivers by canals; to open new highways from the Baltic to the Caspian and from these two seas to the Arctic Ocean. On the Baltic he built a new capital for his empire, called St. Petersburg.[1]

Peter was followed by a line of Czars who also had great ambitions for their country, but who, like Peter, were not often concerned with the health or happiness of the mass of the Russian people.

In 1809 Finland was made a part of the Russian Empire. The Finnish people, of course, were not consulted. Russian armies merely went into Finland, conquered the people, and compelled them to accept the Russian Czar as their ruler.

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[1] In 1914 its name was changed to Petrograd, and since 1920 it has been called Leningrad.

2. Russia slowly expanded southward toward the Black Sea

After the Tatars had been driven back to Asia, the Muscovites pressed on. Always through the centuries that followed they kept pushing through the lands to the south, hoping to build up the old trade route. But south of Kiev they were held back by the Cossacks (or "Freebooters"), as the Tatars had called them.

In the 1600's Russians began to conquer this region, and finally they got control of all the land east of the Dnieper River. Slowly, year by year, they took more and more land. By 1784 the Sea of Azov, which leads directly into the Black Sea, and the lands on each side were included in their empire.

But there is a much more direct way to the sea than the passage through the more northern Sea of Azov. This way is through the Ukraine, a region west of the Dnieper and bordering on the Black Sea itself. The soil of the Ukraine is so rich and black that the region has come to be called the *black-earth* district. *It is the richest wheat-raising region of Europe.* Find it on the map of figure 97 in Chapter IX. In 1793 the Russians conquered it.

Meanwhile Poland tried to prevent Russia from expanding into her territory, but by 1795 Russia had added to the Ukraine the great eastern portion of Poland. This proved to be one of the most valuable sections of the Russian Empire.

Thus after centuries of conflict, the Russian Empire extended to the Black Sea, which opens into the Mediterranean.

The ports on the Black Sea were not an outlet for trade

At last the Russian Czars had obtained the route to Constantinople and had extended their empire to warm waters. But they really did not control the sea passage to the Mediterranean and the Atlantic. As you see on the map following page 336, there is no way out of the Black Sea into the Mediterranean except through the narrow strait of the Dardanelles.

Constantinople controlled this strait. For hundreds of years this city had been in the hands of the Turks, who did not permit ships to pass through freely, as ships pass through the Strait of Gibraltar. Until the Russian ships could get through the strait of the Dardanelles, the ports on the Black Sea were of little use.

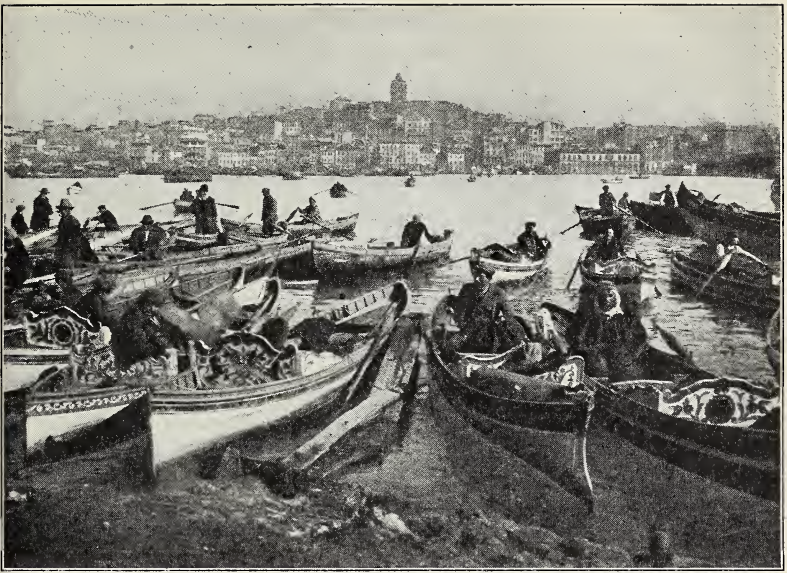

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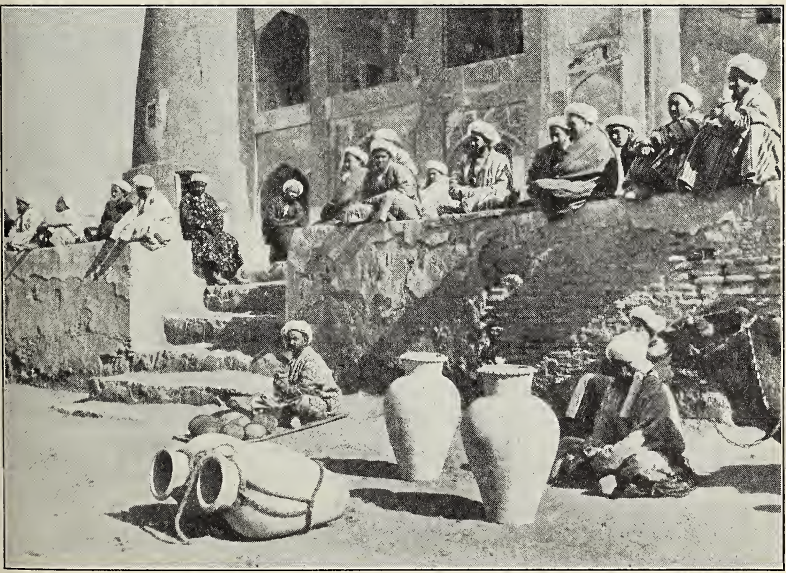
FIG. 120. Constantinople is seen in the background of the picture. This city controls the path from the Mediterranean into the Black Sea



Ewing Galloway

FIG. 121. In front of a mosque in Bokhara. The man sitting on the ground at the right is a water-seller, with his water jars before him

For many years Russia had longed to possess Constantinople, for it was the key to the outside world: to the east end of the Mediterranean; to India, China, and Japan; and to the west through the Mediterranean to the Atlantic.

Russia longed for Constantinople in vain. The rulers of the other leading European countries knew her desire; and as they all feared for their own safety if Russia should gain her "window" on the Mediterranean, they were ready to unite to bottle up Russia.

Between 1735 and 1877 Russia fought seven great wars to win Constantinople. But Great Britain, Germany, Austria, France, and Turkey were all watching her, and each time several of them combined against her. She came near to success again and again, but Constantinople never became hers.

3. Russian settlers moved eastward into Asia

Even as early as the 1500's Russian settlers had moved down toward the mouth of the Volga River and had gained a foothold on the Caspian Sea (see figure 119).

This pushing out and settling in new land did not seem like empire-building at all. Indeed, it was much like the westward expansion of the people of the United States in the 1800's. There was plenty of land; so when a farmer heard stories of more fertile soil in another province, he simply packed up and moved.

A Russian writer has told us about one of these migrations. His grandfather had lived on a fine estate not far from Moscow. This the Muscovite Czars had given to his ancestors. Although he had much land, pasture, and timber, this Russian landowner wanted new territories.

He heard of good lands farther east — fields broad and fertile for cultivating and stock-grazing, and fish and game in plenty. According to the tales he heard from travelers such land could be bought for very small sums. One simply invited a dozen of the local chiefs to a banquet, where two or three fat sheep would be provided for the guests, along with quantities of strong drink. The entertainment might last for some time, for the chiefs did not like to be hurried in doing business. Finally, however, a day would come when one of the chiefs would look the stranger in the face and say: "We are obliged to you, little father, ever so much obliged. And now what is it you want?" Then a long conversation would begin, in which the stranger pretended he wanted nothing; but in the end he would buy the land he wanted.

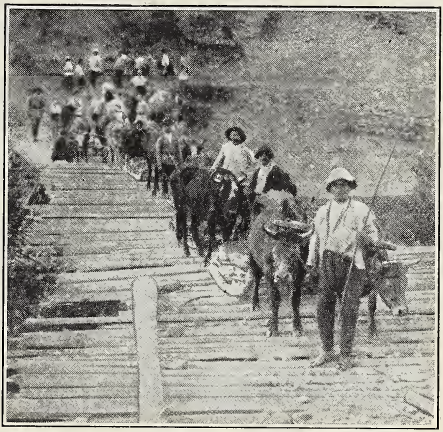


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FIG. 122. These are pioneers or descendants of pioneers who moved southward into Transcaucasia when it became a part of the Russian Empire

This plan sounded very simple, and in due time the Russian writer's grandfather bought 12,000 acres of land at about a dollar an acre. The new landowner went home full of enthusiasm and made great preparations for moving his family and his serfs. In small groups he moved the serfs, who carried with them their farming implements and began at once to till the soil, which had never before been cultivated. It took over a year to transfer all the people from the old estate to their new homes.[1]

Eastward-moving pioneers went into Turkestan

Year by year little bands of settlers moved toward the southeast. Some went even as far as Turkestan (the region east of the southern part of the Caspian Sea). It took nearly 150 years, from 1734 to 1881, to make Turkestan a part of the Russian Empire. It was not a rich land. It was made up mostly of deserts and ancient towns, with only a scattering of small, rich agricultural regions. Nevertheless many Russians moved out and settled there.

Bokhara, in Turkestan, was already an ancient town. Today it still seems like an enchanted city of the Arabian Nights. Within its toothed walls about 50,000 Mohammedans live a life completely apart from the rest of the world. Their streets are narrow. There are a great many shops. The roads, cobbled and winding in every direction, sometimes wander off into alleys and lanes. Sometimes they meet in squares where handsome mosques have been built. Water is scarce in this region, and it is sold in small quantities by water-carriers. Stairways lead from some of the squares to cool, tree-shaded pools of stagnant water. These are the city's water reservoirs.

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[1] Adapted from Serghei Aksakoff's *A Russian Gentleman* (Oxford University Press), translated by J. D. Duff.

Camels pad clumsily over the cobblestones. Fat Mohammedans urge along meek little donkeys. The many vehicles and animals create traffic problems in the narrow streets. The drivers continually shout "Hagh! hagh!" ("Get out of the way!").

Most of Turkestan, however, was quite unlike Bokhara. It was much more like the dry region of Siberia.

Eastward 5000 miles the Russian Empire expanded across Siberia

Before 1600 the Russians also began to cross the Ural Mountains and move into the northern forests of vast Siberia. In 1581 a number of bandits and outcasts formed a group of pioneers who started out across the Urals. They hoped to make a home somewhere in the wild regions that stretched for thousands of miles to the east. It was not a very orderly crowd. It was made up of Russians, Cossacks, Tatars, and German and Polish prisoners of war. In fact, most of them were either fleeing from the law or from the strict rules of Russian discipline. They finally met the Tatars, fought with them, and captured their main town, Sibir. Then they settled down. The leader of these hardy pioneers presented to the Czar the lands which they had conquered.

This was the beginning of a great movement of people. Peasants ran away from their lords to follow the first pioneers. Fortune-hunters followed them, seeking gold and furs. Exiled serfs, sent out by their masters, trailed along in chains. Some went in hopes of riches, some went for adventure, and thousands of outcasts went because they were forced to.

Eastward the Russian settlers pushed on, year by year, following the river valleys exactly as our American pioneers who went down the Ohio River, the Mississippi, and other river valleys of our Middle West had done.

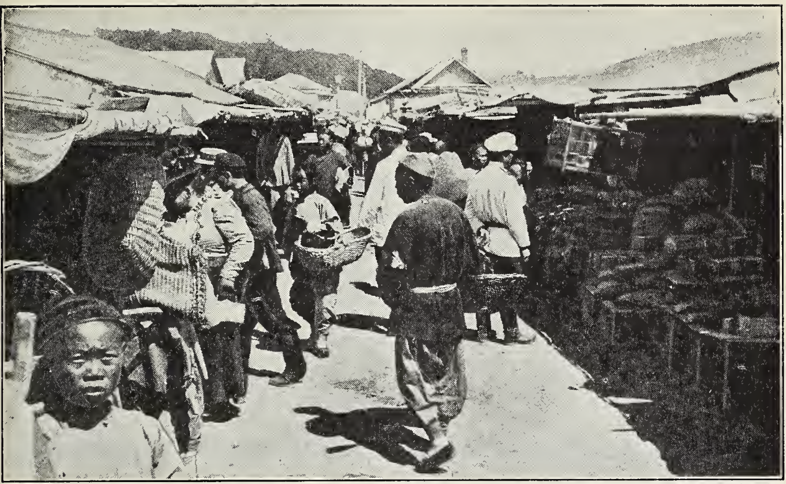

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FIG. 123. A market in Vladivostok today. Here Europeans and Asiatics are seen shopping

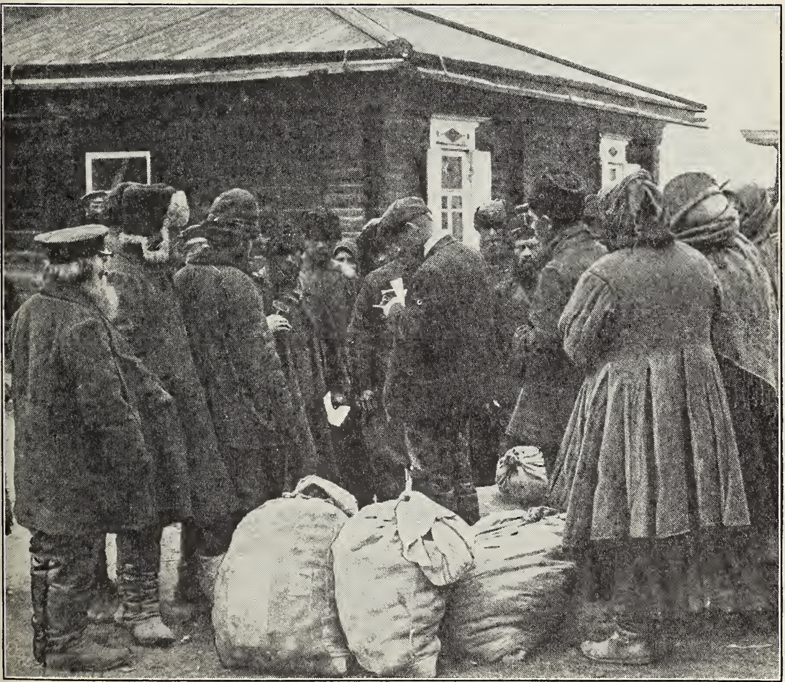

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FIG. 124. Recent immigrants from European Russia to Siberia

Up the great level valley of the Ob River the Russian stream of wanderers moved, in the early 1600's forming the settlement of Tomsk. Beyond the valley of the Ob more adventurous pioneers moved on to the Yenisei River, lying farther to the east. From the valley of this long and magnificent river they next moved over to the Lena River, where they founded Yakutsk and many other settlements.

Of course much of the land between these settlements was thinly inhabited. For more than 200 years settlements were distributed only in the valleys along the rivers. After the middle of the 1600's, however, settlements began to be made farther away from the valleys, spreading both south and north.

Pushing up the headwaters of the Yenisei and Lena rivers, the pioneers found Lake Baikal, in one of the wildest and most beautiful regions in the world. They pushed on eastward to Kamchatka, at the extreme eastern end of Asia. By 1800 the Russian Empire extended from eastern Europe to the Pacific Ocean and across it into Alaska, which, you remember, the United States bought from Russia 70 years later. Finally, about 1860, the Czars had gained another seaport, Vladivostok, on the present Sea of Japan.

Thus was completed one of the greatest migrations that any people ever made — 8,000,000 square miles of thin settlement!

The Empire Came To Include One Seventh of the Land Area of the Earth

The story of the rolling out of the Russian Empire from the little region around Moscow is now before us. If you look at the map of figure 119, you will see what it means. In 1914 the Russian Czar was ruling over a region twice as large as all Europe. The Russian Empire sprawled across Europe and Asia, the greatest single block of territory in the world governed by one ruler.

But in spite of 400 years of expansion *Russia still lacked her one desire, the needed outlet for trade, — a warm-water port.*

What ports had she?

On the north: Archangel, on the White Sea, closed most of the year.

On the west: several ports on the Baltic Sea, such as St. Petersburg and Riga. But the Baltic is a cold sea. Moreover, it is out of the way for trade with southern Europe and Asia and is far from the Mediterranean, which, as we have seen, is the great highway of European trade.

On the east in Asia: Vladivostok, which can be kept open through the winter only by the use of ice-breaking steamers.

On the south: ports on the Black Sea. Without free passage through the Dardanelles past Constantinople to the Mediterranean and the Atlantic, these are of little use. Russia had ports on the Caspian Sea, which lies between Europe and Asia, but no outlet to the water route to the East.

What additions would have profited Russia particularly? A port south of Vladivostok on the Pacific would have been useful. But, most of all, control of the gateway that opened the Black Sea into the Mediterranean would have given her the greatest trade advantages.

Do you see what was the greatest drawback for the Russian Empire? Though it stretched from coast to coast, it lay too far north. With all its 8,000,000 square miles of land, it still needed a warm-water outlet.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

HARPER, THEODORE ACLAND. Red Sky. The Viking Press, Inc. A novel of eastern Siberia, describing the Russian people during the World War and the Red Revolution.

LAMB, HAROLD. Kirdy: The Road out of the World Doubleday, Doran & Company, Inc. A story of Cossack warfare, cruelty, and romance in the dark epoch of seventeenth-century Russia.

MARSHALL, H. E. An Island Story. Frederick A. Stokes Company, New York, 1920. Chapter CIV relates how England and France opposed Russia's attempt to seize Constantinople.

MAZER, SONIA. Mashal: A Little Russian Girl. Doubleday, Doran & Company, Inc. A Russian peasant girl just before the changes of the Revolution.

MOKRIEVITCH, VLADIMIR DE BOGORY. When I was a Boy in Russia. Lothrop, Lee & Shepard Company, Boston, 1916. A true picture of life in one part of Russia.

SKARIATINA, IRINA. Little Era in Old Russia The Bobbs-Merrill Company, 1934. This book presents a delightful picture of old Russia.

VAN BERGEN, ROBERT. The Story of Russia. American Book Co., New York, 1905. An excellent account of Russia's history, being devoted largely to the affairs of the ruling classes.

VERNE, JULES. Michael Strogoff: A Courier of the Czar. Charles Scribner's Sons, 1927. This is a thrilling story of a journey across Siberia.

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CHAPTER XII

THE RUSSIAN PEOPLE BEFORE 1914: MORE FARMERS THAN MANUFACTURERS

"The granary of Europe"

Just before the World War the United States raised nearly 1,000,000,000 bushels of wheat in one year. That was considered a great achievement and was made possible in part by the use of a large number of farming machines.

Russia, however, had produced within one year more than 1,000,000,000 bushels of wheat, 1,000,000,000 bushels of rye, and nearly 1,000,000,000 bushels of oats — almost without farming machines. A truly remarkable achievement! It is little wonder that Russia has long been called "the granary of Europe."

Figure 125 sums up the tremendous part Russia played in the world production of eight important crops during the years immediately before the World War. At that time Russia had about 10 per cent of the world's population.

How was Russia able to produce these enormous crops?

Look at the maps of Europe and Asia following pages 336 and 424. Notice the huge stretches of level land in eastern Europe and northwestern Asia. Russia has more level land within her boundaries than any other country in the world. With the exception of the Ural Mountains most of this land is less than 1000 feet above sea level. There are few regions in the world like it. Even our great central plains of the United States are not so large.

The Three Sections of European Russia

Not all parts of these level plains in Russia are suited for the raising of food, however. Some districts are cold and arid and produce meager crops. Others are somewhat fertile and located in a climate fairly favorable to the raising of food. Still others

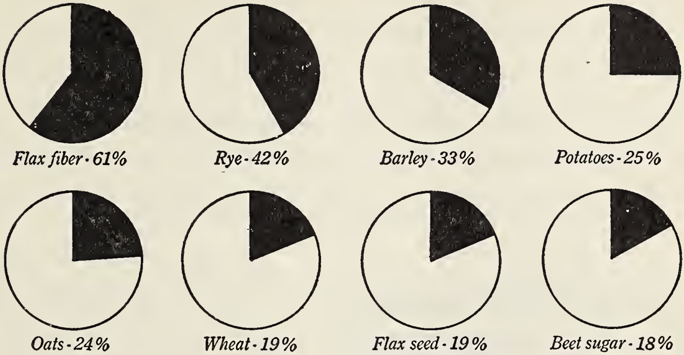

FIG. 125. The darkened areas of the circles indicate Russia's share in the world production of eight important crops before the World War

are so rich that the whole of Russia could easily be fed from them. Let us study these lands briefly, and to do this let us think of European Russia as divided into sections: (1) the northern section, (2) the central section, (3) the southern section.

1. In the northern section few crops can be raised

From the Arctic Ocean to Moscow the land is not very good for farming. Around Archangel, for example, it is as bleak and icy as Greenland and Labrador. Like the land of the Eskimos, this region is frozen over most of the year. We call these level areas that have no trees tundras. Even in the warmest season, when the low swampy plains are thawed out, only moss and grasses will grow there. Though the ground thaws to the depth of a foot or two, it never gets completely thawed out so that crops can be planted and harvested.

South of Moscow, however, the climate is so warm that great forests thrive. The immense woods of this country, especially in the eastern part near the Ural Mountains, remind us very much of our own great timbered mountains in the northwest United States. In European Russia alone the forests cover a territory of almost 405,000,000 acres.

2. In the central plains great crops of rye are produced

Note on the map, figure 116, the great central region — a great blackened strip running through central Russia. Here enormous quantities of rye are raised. Most of the 1,000,000,000 bushels of rye produced yearly just before the World War came from here.

3. In the black-earth region huge amounts of wheat are raised

Notice the black spot just north of the Black Sea on the world wheat map of figure 97. This is the region called the Ukraine. Do you see what a tremendous amount of wheat is raised in this district? There was not a region in the world before 1914 which produced more wheat than this one — neither our own central wheat belt nor the vast wheat plains of Argentina.

Southern Russia was called the savage steppe when the Russian people took it from the Cossacks and the Poles. So fertile are the lands of this region that today it is regarded as one of the richest farming districts in the world. You have already learned that it is called the black-earth region, because the earth is as black as coal when it is wet. Slowly through thousands of years plants have decayed and produced a rich vegetable mold, which is thought to be ten to twenty feet deep in some places. This region gets enough rainfall so that barley, oats, and other crops grow very quickly and abundantly.

There is an interesting fact about the farming land of Russia that you should remember. Although in size the cultivated land makes up less than one fourth of European Russia, yet its area is *greater than the total area of France, Germany, and Great Britain combined.*

What explains such a difference in the richness of farm products in these three regions of Russia? Several things, but especially temperature and rainfall.

Compare the map of production of the various grain crops with the temperature map in Chapter XXVIII. Is there any relation between the low temperature in northern Russia and the small amount of food production in that region? Does the warm temperature in the region just north of the Black Sea help to account for the large amount of wheat and other grains produced in this section?

Is there any relation between the usual amount of rainfall in southern Russia and the great production of wheat, rye, barley, and other crops?

Russian farms can feed almost all the people

Although scarcely anything grows in the icy northern plains of Russia, the southern black-earth region produces enough for all. Great quantities of food are raised — not only enough to feed the northerners but to help to feed the people of other lands as well.

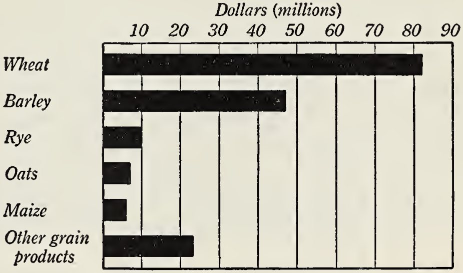

FIG. 126. The value of Russia's grain production for one year just before the World War. The graph shows the importance of Russia's wheat growing at that time

The value of the grain exported in one year, just before the World War, was $175,000,000 — largely from the Ukraine. By 1914 Germany and other western European countries were very dependent upon Russia for two of the most important food crops — barley and wheat.

These large crops were raised mainly by crude farming methods

The Russian farms were much like the farms of the medieval English manors. The village land was divided into three large fields, separated from one another by ditches about a foot wide.

These fields were cut into strips. Every peasant held one or several of these strips in each field. The strips were very narrow, for the land had been divided among the sons of the family for many generations. As time went on, the long strips grew ever narrower. Sometimes they were so narrow that a farmer had to walk on his neighbor's land in order to plow his own.

Russian farm implements were little better than those of primitive times. One could travel hundreds and hundreds of miles over the great wheat farms of Russia without seeing a threshing machine such as those which are so common today on American farms in the Middle West. Thousands of Ukrainian peasants plowed their rich soil with homemade plows that just scratched the surface of the ground, in much the same way as our pioneer forefathers did in America. They sowed and reaped by hand. They threshed laboriously by beating out the grains of wheat with crude flails. Finally they slowly hauled their crops to the villages and towns in carts.

It is difficult to imagine 3,000,000,000 bushels of grain planted, cultivated, harvested, and threshed by hand. How could such enormous crops have been produced? Only under three conditions: first, a vast area of very fertile soil; second, a good climate for growing grain; and third, a tremendous number of laborers. These three conditions were found in the Russia of 1914; indeed, they are found there today. Not only are the fields of south and central Russia enormous and the climate favorable, but there are also great numbers of peasant laborers. To understand how the people of Russia could produce such large crops, let us study briefly the story of the Russian peasants.

Until recently serfs produced the crops of Russia

Russia was an enormous country, and there could have been plenty of land for everybody. But for 1000 years, until 1861, most of the Russian people were serfs, who were little better off than slaves. Although by their muscles and their endless toil they raised great crops, they themselves often went without food.

As early as 1601 there were laws that compelled the peasants to stay on the land which they were then farming. These laws bound the serfs to the soil.

The peasants were really slaves of the rich landowners. Their names were listed in books under the names of the people on whose estate they were working. This made it very hard for them to run away without being caught. Only a very bold man would try it; for if a runaway serf were returned to his master, his punishment was very severe.

After 1646 the landlords secured still more power over the lives of their serfs. Other laws were passed, stating how much they

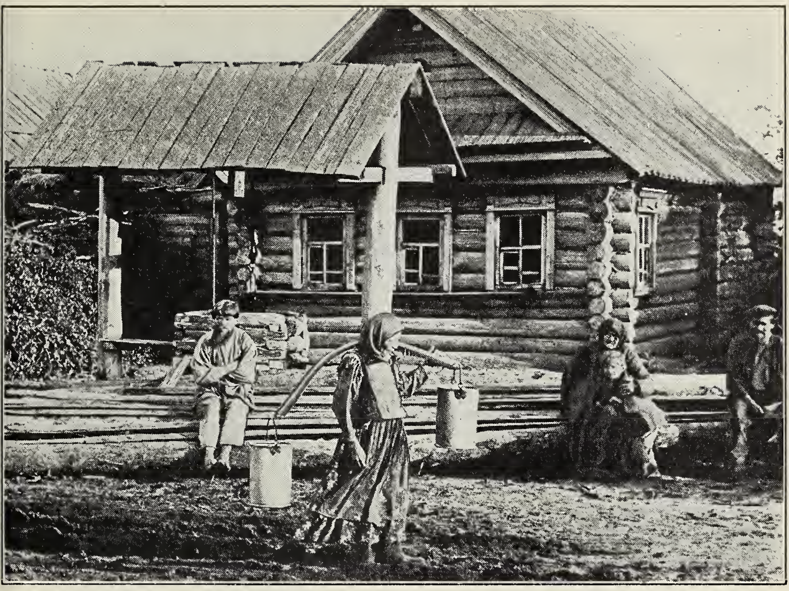

Fig. 127. Do you see anything in this Russian scene that reminds you of life in an industrial country?

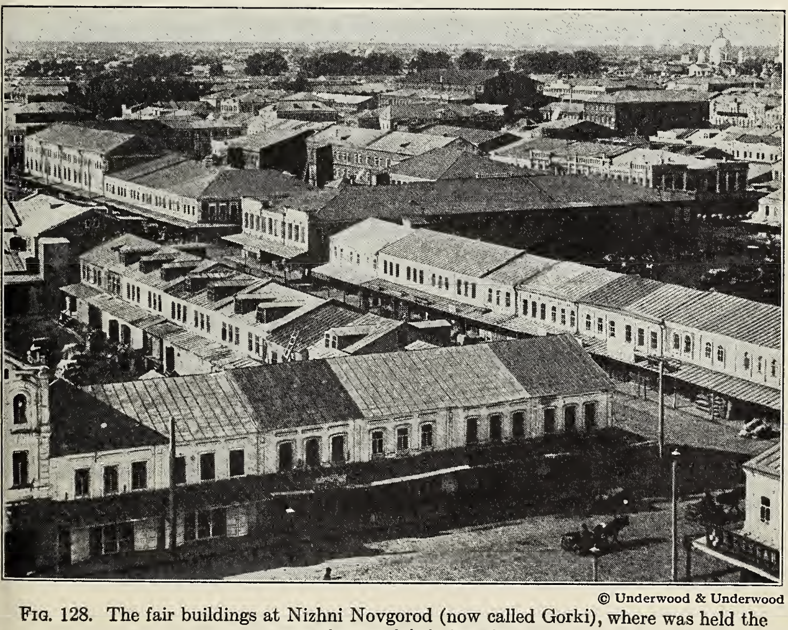

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Fig. 128. The fair buildings at Nizhni Novgorod (now called Gorki), where was held the most famous fair in Russia

could punish them. Still others even permitted them to separate the serfs from their families, to sell them as slaves.

The serfs were considered more as farm machinery than as human beings. As time went on the working and living conditions of the Russian peasants became almost unbelievably bad. They lived in poverty and ignorance and filth. Almost none of them could read or write.

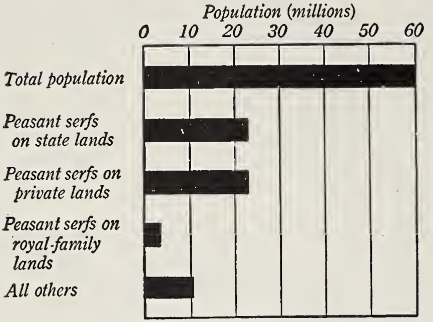

FIG. 129. Russia's population in 1861. Until after this time nearly five sixths of Russia's population were serfs who farmed land which they did not own

A few masters were interested in the health and happiness of their peasants, but many of them were cruel, desiring only to obtain as much work as possible. The law permitted them to punish disobedience of any kind by whipping, "not exceeding 40 lashes with the birch or 15 blows with the stick." One writer, who lived in Russia recently, tells the following story:

> Only a few months ago as I rode through a country district . . . with a peasant of the neighborhood, he pointed out an estate of a former landowner who had been a terror to all his peasants. From a tower still standing in the garden he used to watch the workmen in the fields with glasses, and at the end of the day report laggards to the overseer for punishment. Huskies armed with birch branches waited in the barn, and many a peasant was carried home with a bleeding back, too weakened to walk. My companion told me how his own grandfather had been beaten to death by an overseer of this same landlord. One day he was ill and did not report for work. The boss ordered birches, and himself beat the sick man while four other peasants held him. The next day when the overseer called, he found the grandfather dead. He took a casual look at the body and laconically remarked: "Well, he must have been sick after all."
>
> And that closed the incident.[1]

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[1] Karl Borders, *Village Life under the Soviets.* Vanguard Press, Inc., New York, 1927.

Serfs legally freed in 1861; ownership of the land given to village communities

The bar graph of figure 129 shows that in 1861 nearly 50,000,000 out of the 60,000,000 people were serfs.

In 1861, nearly two years before Abraham Lincoln freed the black slaves of the United States, the white serfs of Russia became free men. At the same time the Russian government divided the land among the villages.

Land was taken from the landlords and the clergy and even from the huge estates of the Czar himself. In some regions as much as half of the land was taken from the lords. *But it was not given to the freed serfs. It was given to the "mir" (the village).*

The *mir* in turn had to pay taxes to the government for this land. Village meetings were held at which the land was divided among the people. After that it was decided how much of the tax must be paid by the various peasants.

Once in twelve years, or sometimes longer, the land was redivided among the peasants. This was done because some families had grown larger and needed more land, or, perhaps, one family might have died.

It may seem strange to you, but peasants often wanted little land rather than a great deal. Can you think of a possible reason for this? Yes. The more land a peasant held, the greater part of the village tax he had to pay!

Heavy taxes made living hard for the peasants

The freed peasants of the 1860's were not much better off than their ancestors had been. They had to pay such heavy taxes that they had barely enough left for food.

In order to get a bare living, many peasants hired themselves out to the landlords who still owned some of the land. But wages were so low that they could make little by working on the big estates of the lords. Sometimes the peasants rented land and farmed it themselves, but rents were so high that no profit could be made by farming rented land. No matter how they arranged it, they seemed no better off. The peasants came to hate the government tax-collectors as much as they had formerly hated the landlords. Although they were legally "free," it seemed to the peasants that they would have to suffer hardship and toil and debt forever.

Slowly, throughout the huge land, from cities to villages, the spirit of revolt spread. In the 1880's and 1890's the peasants gained courage. Without asking the permission of officials or nobles, they cut down forests and used the wood for fuel and for buildings. Frequently they refused to pay rents and taxes. Sometimes they burned barns and other buildings belonging to the nobles. They organized a Peasants' Union, which made demands upon the government, one of which was "All the land for those who labor on it."

The Russia of 1914 was a land of peasant farmers

Throughout Russia's long history, therefore, most of the people worked upon the land. They were farmers, not city or town people, and there were few handicraftsmen.

Even today only a small percentage of the total population are tenders of machines. Russia is not like the United States and other industrial countries in that respect. Of the leading powers of the world, Russia is the only one in which most of the people are still engaged in farming. What a contrast is shown by the graph of figure 130! Notice that about one twelfth of the British people are engaged in agriculture, about one fourth of the Americans, and less than half of the French. Out of every 100 Russian people 80 are farmers.

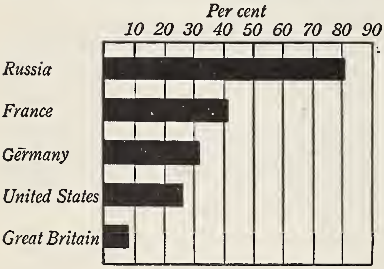

FIG. 130. The approximate percentage of people engaged in agriculture after 1900 in five important countries

Throughout history Russian peasants have lived in villages. Some of these have only a few hundred people; others have as many as 10,000 people — yet each is a real farming community. This way of living is true of European farmers in general. They do not, like American farmers, live on their farms and go to town, perhaps once or twice a week, to do their buying. Instead, they leave the village each day and walk sometimes miles to reach their fields. At the end of the day's farming they tramp wearily back to their houses. Altogether, more than 80 per cent of the people live in farm villages, of which there are now several hundred thousand.

Here is a glimpse of village life near Moscow. It is fairly typical of a very large number of communities scattered about over the huge country.

At noon one August day two travelers set out toward a little Russian village. One was a wanderer returning to his home from America; the other was a native American.

When they reached their village an old peasant in a bright-blue smock, who had sat sunning himself, shaded his eyes and stared. Then he cried, "Mikail Petrovich!" and threw his arms around the Russian. The greeting over, he turned to the American and inquired his name and that of his father. The American replied that his name was Albert and that his father was called David.

"Albert Davidovich!" [Albert, son of David] he cried. "Welcome to the house of Ivan Ivanov. We are poor, but may God give you his richest blessing."

A typical meal was served — first, a bowl of cabbage soup, into which everyone dipped. Later, a bowl of porridge and a third one of raisins. Ivan, the master, presided at the samovar and served tea, cucumbers, and black bread. This was a great feast, for the village was holding a festival.

It was a holiday, and in celebration of it the boys and girls in bright Russian costumes sang and danced on the green before the church. Meanwhile the returned Russian pictured to his countrymen the wonders of his new land, the United States. He told of skyscrapers, great factories, subways, and amusements. The peasants who had lived in one-story houses and who had never seen a shop larger than the blacksmith's listened with interest, but showed little wonder or amazement.[1]

WHAT HANDICRAFTS WERE DEVELOPED IN THE RUSSIAN VILLAGES?

In England, just before the Industrial Revolution, handicrafts were flourishing. Many artisans were busy at spinning, weaving, pottery-making, and cobbling. So, too, the artisans of France were gaining world-wide reputations for their glass, pottery, tapestry, and metal work. In these countries many small factories and shops had sprung up.

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[1] Adapted from Albert Rhys Williams's *Through the Russian Revolution*, pp. 41–56. Boni & Liveright, New York, 1921.

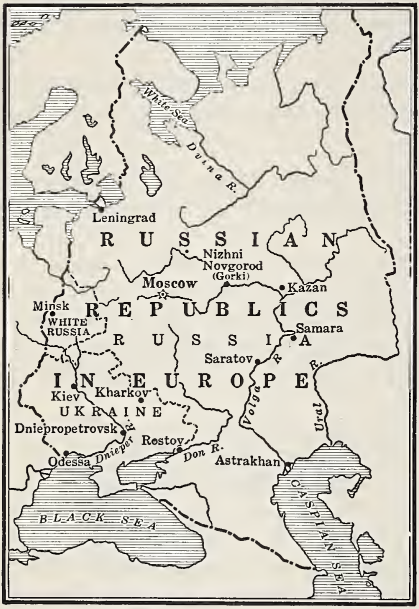
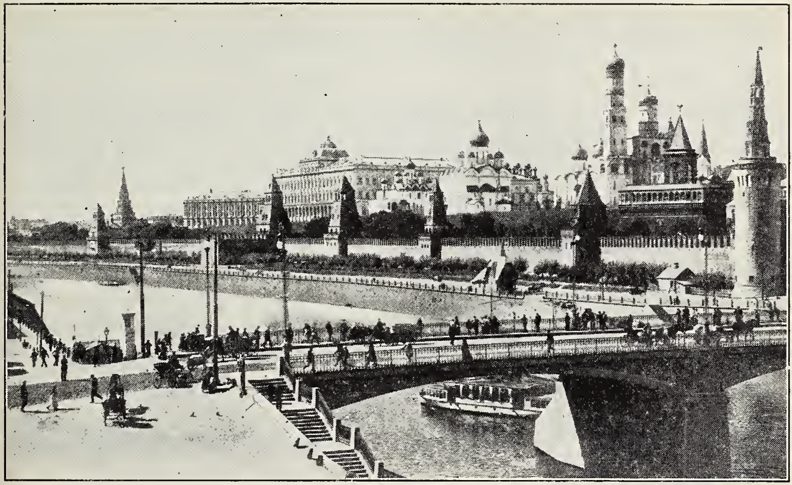

White Sea
Dvina R.
Leningrad
RUSSIAN
Nizhni
Novgorod
(Gorki)
Moscow
Kazan
Minsk
REPUBLICS
WHITE
RUSSIA
Samara
RUSSIA
Saratov
IN EUROPE
Volga R.
Ural R.
Kiev
Kharkov
UKRAINE
Dniepropetrovsk
Rostov
Odessa
Dnieper
Don R.
Astrakhan
BLACK SEA
CASPIAN SEA

Fig. 131. The most important cities in the Russian republics in Europe

It was not so in Russia even as late as 1914. No large number of people became separated from the soil long enough to make a living by crafts alone. What they needed they made at home as time permitted, just as had been done when the lords and clergy owned serfs in England.

Certain districts, it is true, did become locally famous for work in the handicrafts. For example, the people around Moscow wove baskets from the branches or shoots of the bushes that grew in the swamps. Later they made wicker furniture. The women made beautiful lace. In Yaroslavl the brass samovars were made — shining vessels that could keep water continually hot, ready for the tea. In Nizhni Novgorod, knives, forks, and scissors were among the chief manufactures. But such handicrafts supplied only a limited local trade. They helped the peasants *to make a little better living.* They occupied the time of a few town artisans.

These simple products of Russia were usually exchanged by barter. That is, people traded goods for goods — oats for shoes, or cloth for butter. Occasionally peddlers came to the villages, carrying their packs from door to door, displaying their trinkets. As in the Middle Ages, the fairs were the great centers of trading. Peasants went to the trading fairs, as farmers go to the annual country fairs in America today, for trade and pleasure.



Ewing Galloway

FIG. 132. This is the Kremlin. The original wall surrounded a fortress. Today it contains the most famous buildings in Moscow — museums, churches, and colleges

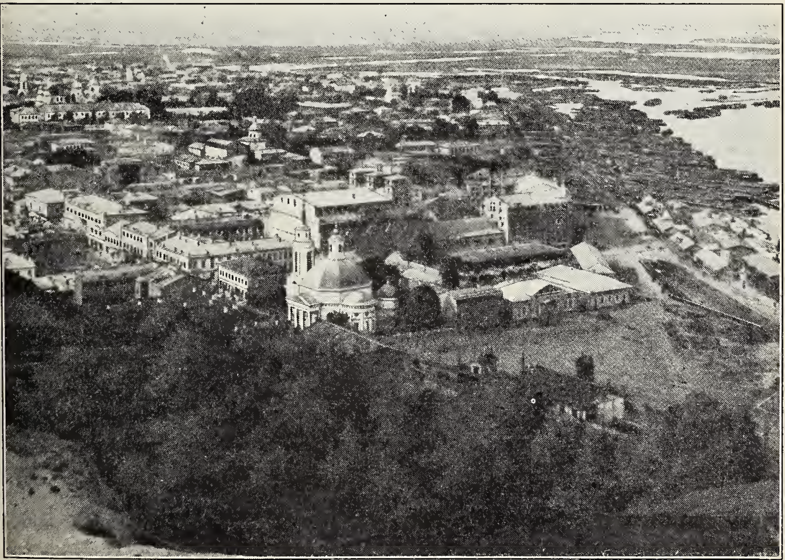


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FIG. 133. The city of Kiev, on the Dnieper River

Russian Cities Grew Up as Centers of Trade

When the census was taken in 1926, there were 31 cities in Russia with over 100,000 inhabitants. The most important of these cities are marked on the map of figure 131.

The words "Russian city" must not call to your mind a place of skyscrapers, however, — a New York, a Chicago, or a London. Most of the Russian cities are very different kinds of places. There is ancient Kiev, the central settlement on the trade route of the Norsemen — over 1000 years old. Its population today is about 540,000. There is Moscow, the starting-point of the great empire of the Muscovites, which today is a city of over 3,600,000 inhabitants. Then there is Leningrad, the carefully planned city of Peter the Great, with nearly 2,800,000 people.

These ancient cities have grown snowball fashion, much as the Russian Empire did. People have stuck to the outskirts of the towns, which have spread out slowly in all directions.

What other cities are on the map?

Find the port of Odessa on the Black Sea. It has a population of nearly 500,000. At the mouth of the Don River on the Sea of Azov there is Rostov, with about 500,000 people. On the Caspian Sea, at the mouth of the Volga River, is Astrakhan.

There is one thing you can notice very clearly on the map. Almost all these cities are located on water routes. Kiev, on the famous old Baltic-to-Constantinople water road, is only one of them. Trace the course of the Volga. Note the cities along its banks: Astrakhan at its mouth; then Saratov, Samara, and Kazan; and up in the headwaters of one of its tributaries lies the city of Moscow. Five of the larger cities are on one great river.

Note the cities on the seas: Leningrad on the Baltic, Astrakhan on the Caspian Sea, and Odessa on the Black Sea. Evidently in Russia, as in other countries, cities grew up at places convenient for transportation and exchange of goods, for trade.

The Russian Way of Life

This, then, is a brief picture of the Russian civilization up to 1914 — a civilization of millions of people, part of whom were European and part of whom were Asiatic. This, in a way, is the story of the people of all eastern Europe — Finland, Poland, and Hungary, and Rumania and other Balkan countries.

We have seen that theirs was a farming, not an industrial, civilization. Most of the people were peasants and craftsmen, not skilled tenders of machines. They resided in countless villages, not in modern cities. They got a living out of the soil by hard muscle labor, not through manufacturing and exchanging machine-made goods. Hours of labor were long, and the reward for them was very small indeed.

In 1914 they were living much to themselves and traveled little. Transportation was slow and difficult. Communication with distant places was almost impossible.

In Chapter XIX we shall see what changes took place in Russia after 1914.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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Haskell, H. E. Katrinka. E. P. Dutton & Co., Inc., 1915. The story of a Russian child. A Russian peasant girl becomes a member of the Imperial Russian ballet.

Huntington, Ellsworth. Asia. Rand McNally & Company, Chicago, 1912. A fine reference. See Chapter XII, "Transcaspia and Russian Turkestan," and Chapter XIII, "Siberia: the Most American Country in Asia."

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Whitbeck, Ray Hughes. Industrial Geography. American Book Company, New York, 1924. Chapter XXVI, "Russia in Europe and in Asia."

White, W. C. Made in Russia. Alfred A. Knopf, Inc., 1932.

Williams, Archibald. The Romance of Modern Engineering. J. B. Lippincott Company, Philadelphia, 1921. Chapter VII presents a dramatic report of the building of the Trans-Siberian Railway.

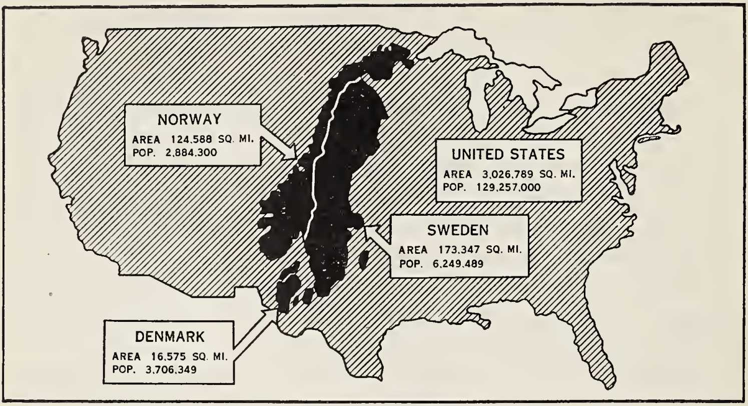

NORWAY
AREA 124,588 SQ. MI.
POP. 2,884,300
UNITED STATES
AREA 3,026,789 SQ. MI.
POP. 129,257,000
SWEDEN
AREA 173,347 SQ. MI.
POP. 6,249,489
DENMARK
AREA 16,575 SQ. MI.
POP. 3,706,349

Fig. 134. Scandinavia has only about one tenth the area and the population of the United States

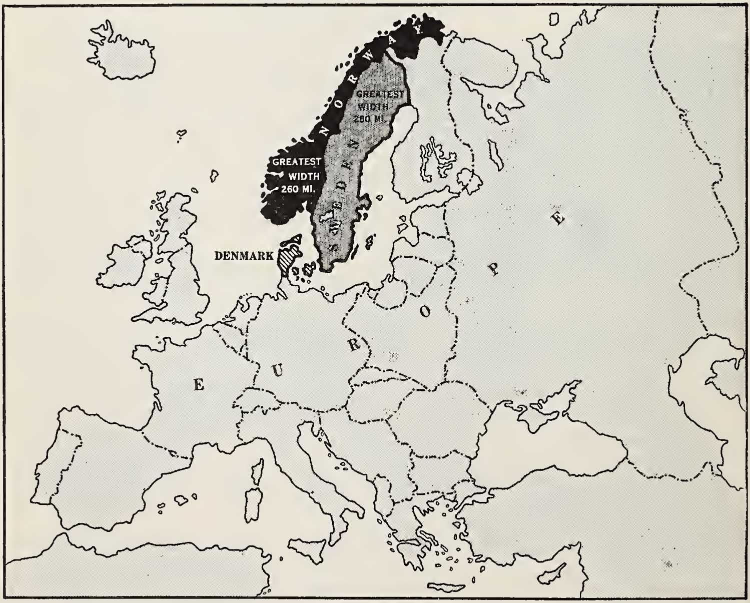

NORWAY
GREATEST WIDTH 280 MI.
GREATEST WIDTH 260 MI.
SWEDEN
DENMARK
EUROPE

Fig. 135. Scandinavia: Three small countries on two little peninsulas

CHAPTER XIII

SCANDINAVIA: DENMARK, NORWAY, SWEDEN

THREE LITTLE COUNTRIES ON TWO LITTLE PENINSULAS

Now be prepared for some new surprises! We turn from the study of the giant empire of Russia to three tiny countries in the far northern peninsulas of Scandinavia. Tiny they are indeed, the three of them occupying barely $\frac{1}{25}$ of the land of Russia. But, small though they are, the peoples of these three countries have perhaps done as much as any other peoples on the earth to develop the new European civilization which is now sweeping around the world.

Scandinavia! What is this land that has such a queer sounding name? If you look in a standard dictionary you will read that "Scandinavia" is the name given to the region that includes Denmark, Norway, and Sweden. Although they are three separate countries, different in geography, in ways of living, in history, nevertheless in many ways they are closely related. They had the same ancient peoples as ancestors, and their history for a long time was very much the same kind of story. Even today, they have so much in common that their governments work very closely together. For these reasons we shall study them together.

MORE "GEOGRAPHIC" SURPRISES — FIRST: THE NORTHMEN ARE WELL-NAMED!

We have met many "geographic" surprises in our study, but perhaps no more startling ones than those we shall get while we read about Scandinavia.

First, find the countries of Scandinavia on the colored map following page 336. You can see that Denmark is not quite so far north as Norway and Sweden; it lies about 55° and $57\frac{1}{2}$° north latitude. But notice that Norway and Sweden stretch from 55°

to 71°, to a distance north and south of 1100 miles. Remember that 60,000 square miles of the territory of Norway and Sweden are actually *north of the Arctic Circle* ($66\frac{1}{2}°$ north latitude)!

Perhaps you are thinking: But "Arctic Circle" brings to my mind the Copper Eskimos of the Coronation Gulf, the natives of Greenland and Iceland, the peoples of the shut-in spots of northern Siberia. Can it be that there are people of Norway and Sweden, two modern countries, living beyond the Arctic Circle? Yes. But of course not many people live there, actually only about 75,000 Norwegians ($\frac{1}{33}$ of the population) and 20,000 Swedes ($\frac{1}{310}$ of the population). Nevertheless these people have quite up-to-date ways of living.

Are not these Scandinavian people well-named? "Norsemen!" "Northmen!" Men of the North they certainly are. No other modern countries in the world are so far north as Norway and Sweden.

SECOND: THREE TINY COUNTRIES ON TWO TINY PENINSULAS

The second fact to remember about the Scandinavian peoples is that they are very few in number and their countries are small.

Look at the comparisons of land area and population shown in figure 134. All of Scandinavia — three countries — includes only 315,000 square miles of land and 12,800,000 human beings. This is only

$\frac{3}{5}$ of 1 per cent of the earth's land area
$\frac{3}{5}$ of 1 per cent of the earth's people

It is only about one tenth of the area and a little less than one tenth of the population of the United States.

Throughout your life you will hear much about the way the Scandinavian peoples "made history" in the past centuries and are still doing important things to help make it. Only a few hundred years ago one or another of these tiny countries ruled over important countries of Europe; they defeated powerful European armies. They built up trade and settled territories all the way from the Baltic to the Mediterranean Sea and the Near East. Five hundred years and more before the days of Christopher Columbus they explored the Atlantic Ocean all the way to North

America. They helped to settle England and France, and parts of Germany and Russia and Central Europe.

Indeed, you will probably never cease to wonder that such astonishing things could be done by so few people inhabiting such a small region, much of which lay near the Arctic Circle!

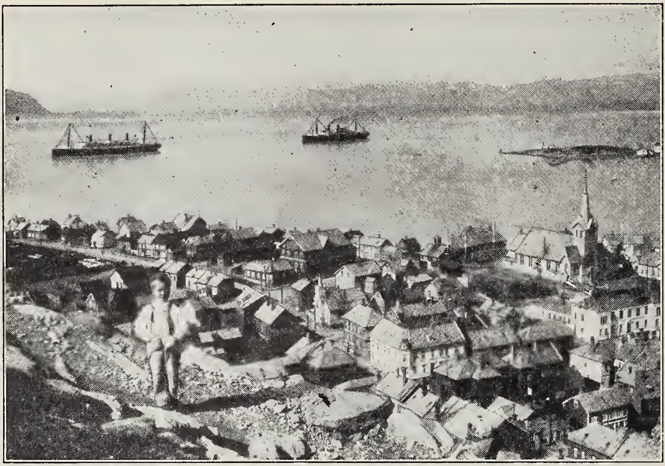
THIRD: "THE LAND OF THE MIDNIGHT SUN!"

But your third geography surprise is even more astonishing than the first two. The northern part of Scandinavia is a "land of the midnight sun!"

Figure 136 shows a picture of Hammerfest, Norway. This tiny modern Norwegian seaport of 2700 people, on an island off the very northern tip of Norway's coast, is the most northern "incorporated" town in the world. Not only is its harbor open or unfrozen the year around, but it, like all the other far northern regions of Norway and Sweden, has a very curious arrangement of days and nights. From the 13th of May to the 29th of July the sun never sets! During the entire 24 hours of each "day," the sun is seen low in the sky near the horizon. It seems to move in a wide circle on a horizontal line, never rising high in the heavens, never setting below the horizon. For ten weeks these people of the Far North have daylight 24 hours a day.

Then the sun begins to disappear below the horizon every day, and more and more as the days go on. In the autumn it is out of sight most of the time. By the middle of November it never comes up, and for ten weeks — nearly up to the end of January — the people live in twilight. In Hammerfest electric lights brighten the streets 24 hours a day. About Christmas, which is the darkest season, there are only three and a half hours a day when the twilight is good enough for one to do ordinary errands, and less than ten hours when any twilight at all is to be seen in the sky. In such twilight the fishermen move in and out of the harbors and fiords, carrying on their work as usual.

We do not mean to say that Hammerfest and the regions of Norway and Sweden near it are the only places which have a midnight sun. The same is true in all the land which is in the Arctic Zone — in northern Finland, in northern Russia, in northern Siberia, in northern Canada, in northern Alaska, in most of



By De Cou, from Ewing Galloway

FIG. 136. Hammerfest, off the northern tip of Norway, has an open, or unfrozen, harbor the year round. Do you know why?

Greenland. In these places, too, from May to August there are several weeks of "daylight," and from November to February several weeks of "night-darkness."

Why do Arctic regions have such curious nights and days?

From your earlier studies you should be able to answer that question; but to make sure that you can, we have included the charts of figures 137 and 138. Let us sum up quickly what they teach us about night and day, the seasons, and some other things.

Figure 137 reminds us that the earth spins clear around on its axis once each 24 hours. Where we are, say in the North Temperate Zone, this means that the sun shines directly on us for that portion of the 24 hours which we call "day." The other portion of the 24 hours, when the sun is shining on the opposite side of the globe, we call "night."

Of course the length of the days and the nights is not the same throughout the year. To understand why, we must know about the position of the earth in relation to the sun and the manner in which it moves around the sun. Figures 137 and 138

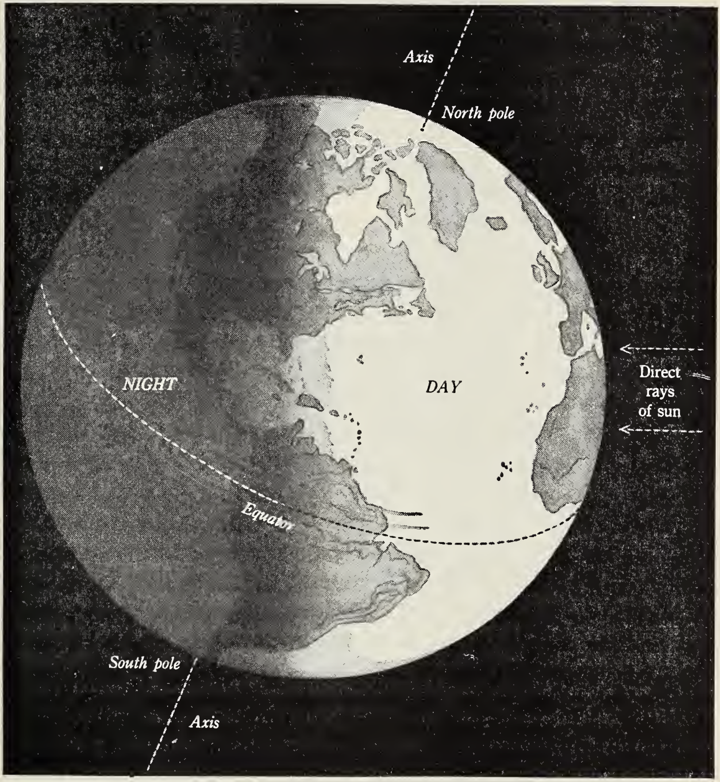


FIG. 137. The earth turns on its axis once every 24 hours

remind us that the earth does not spin upright like a top on the floor. It spins as if it were bending over — the north pole always pointing in the same direction.

Remember next that all the time that the earth is spinning on its axis, during night and day, it is also moving through space in a great path around the sun. Once a year it moves entirely around that path. Figure 138 shows how, as the earth moves around the sun, the north pole is pointed toward the sun at some times and at other times away from the sun. It shows that from June 21 to September 21 when the north pole is pointed toward the sun, the part of the earth north of the equator is having summer, and the southern part is having winter. From December 21 to March 21 the south pole is pointed toward the sun. It is then that the northern part of the earth is having winter and the southern part is having summer. When June 21 comes again, a year is completed; the earth has gone entirely around the sun, and the four seasons — summer, autumn, winter, and spring — have passed.

This tipping of the earth explains several things. First, it tells us why the lines of the Arctic and Antarctic circles and those of the two "Tropics" are drawn where they are. On June 21 (the longest day of the year in the northern hemisphere) the vertical rays of the sun strike the earth on a line 23½° north of the equator. This is called the Tropic of Cancer. Extreme rays of the sun reach the line around the earth 23½° beyond the north pole, that is, to 66½° north latitude. This line is called the Arctic Circle. On December 21 (the shortest day of our year) the vertical rays of the sun strike the earth on a line 23½° south of the equator. This line is called the Tropic of Capricorn. The extreme rays of the sun go 23½° beyond the south pole to the 66½° south-latitude line. This line is called the Antarctic Circle.

Second, the tipping of the earth shows us that *all the time* during several weeks of the summer months the people of that part of the earth north of the Arctic Circle can see the sun — low near the horizon, of course. In Hammerfest, Norway, the people can see the sun from May 13 to July 29. The exact dates differ in different places on the earth.

Similarly, figure 138 helps us to see how during the winter the north pole is tipped away from the sun and there is a long period of several weeks when most people who live north of the Arctic Circle cannot see the sun at all.

FOURTH: CLIMATE, GROWING SEASONS, CROPS, AND PEOPLE

The fourth geography surprise is about climate in the countries of the far north. What kind of climate would you expect in northern Norway and Sweden? Tropical heat? "Of course not!" you exclaim. "How silly! The tropics are near the equator. Scandinavia is near the Arctic Zone! It must be icy cold!"

Yes, it is — part of the year! From early autumn to spring,

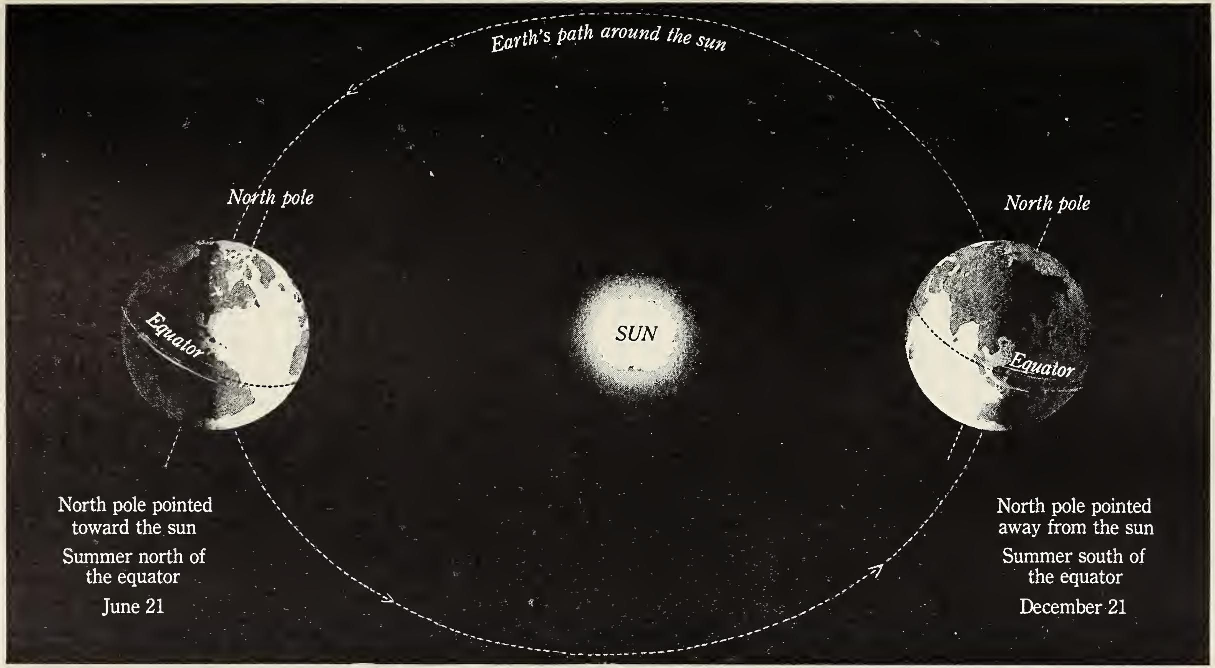

Earth's path around the sun
North pole
North pole
Equator
SUN
Equator
North pole pointed toward the sun
Summer north of the equator
June 21
North pole pointed away from the sun
Summer south of the equator
December 21

Fig. 138. The earth in its path around the sun

snow lies on the ground of most of the northern half of Norway and Sweden — in fact, nearly all of those two countries have freezing weather with snow and ice for seven months of the year.

Level land, climate, and farming in Denmark

However, the three countries of Scandinavia do not have the same climate. Let us see how each one differs from the others.

Again we meet two old friends — "the Gulf Stream" and "the Westerly Winds." These winds, as you know, blow across the Atlantic Ocean from North America and become warm as they cross the Gulf Stream. They reach Denmark and blow right across the land, thus causing it to have a rather mild climate. They are not stopped by any high mountains; in fact, the entire area of Denmark lies fairly near the level of the sea. The hills which extend across the middle of the peninsula do not rise higher than 600 feet. Thus the warm westerly winds do much to cause Denmark to have an average summer temperature of about 60° F. and a winter average temperature of about 32° F.

These winds bring moisture too. Rains and mists come frequently. From 21 to about 27 inches of rain fall every year.

One would think that with such a climate the Danes would have an excellent farming country. But the soil in Denmark is not especially fertile. The western half is sandy and not good for the raising of grain and general farming. Only in the eastern part of the peninsula and in the islands is the land fertile. However, wherever the soil does permit, the Danish people have farms and raise cattle. Some oats, barley, rye, and beets are grown. Dairying has become a very important occupation of the Danish people. In fact, their creameries turn out such excellent butter that large amounts of it are exported to other countries.

Until recently the Danes failed to gain a prosperous living by raising farm products. However, the farmers of Denmark have learned to work together for the improvement of their farms. They have been forming groups to buy modern machinery and to learn of the newest and best ways of getting the most from their land. This, and the fishing industry which we shall hear about later, has helped very much to make them what they are today — a very prosperous modern people.

Mountains, climate, and farming in Norway and Sweden

Let us turn now to Norway and then to Sweden, for there is a difference between the climate of these two countries. To understand why, we must know about the topography in each country.

The southern part of Norway is fairly near the level of the sea; but practically all of the rest of it is covered with mountains. To the east there are high plateaus which are covered with deep snow.

The warm westerly winds sweeping in from the Atlantic Ocean warm the southern region and the western coast of Norway, and bring heavy rains and dense fogs. But they do not carry heat very far inland because they meet the high mountains in the north, the Kjölen Mountains, which form much of the boundary between Norway and Sweden. Thus the westerly winds which help to warm Denmark, southern Norway, and the lands along the coast do not raise the temperature of inland Norway very much. The interior of Norway is cold, and, because less rain falls there, it is drier than it is on the coast.

It is not difficult to understand why the winters of northern Sweden are very cold and raw. Indeed they are cold, and they last for about nine months of the year. The lands in the southern half of Sweden get only seven months of extremely cold winter, however. This is because the winds help to warm that land. They are not stopped by high mountains before they reach this part of the country.

Rainfall in Sweden differs in the north and south. The south gets a great deal of rain, from twenty to forty inches a year; while the northern half seldom gets more than thirteen inches a year. Can you explain why?

Can farming be carried on in these countries? Yes, the Scandinavians grow crops of potatoes, sugar beets, and some wheat, barley, oats, and rye (see maps of figures 96 to 99). Of course the larger amounts are raised in the more southern low lands of Sweden and on the broad low farms of Denmark. But even in the more northern regions, fairly good crops are raised in the spring and summer seasons, which together seldom last over three months.

The sun and the growing seasons

What makes that possible? The position of the earth with respect to the sun. It is because the sun shines from fourteen to eighteen hours a day during the few spring and summer months on this part of the earth. The "growing season" is short, it is true, but it is intense. Remember that in parts of our country growing seasons of six months are common, and in some regions they last seven, eight, even nine months! But we, of course, have nights as well as days.

In these northern lands when the sun shines, it shines! It beats down on the soil containing the seeds and growing plants. Where there is plenty of rainfall this steady heat brings out the young plants, and they ripen much more quickly than in the regions farther south. So wherever the fishermen-farmers can find a little plot of good soil near their fiords, they plant and raise their crops. This, then, is the first way in which the sun influences the people of northern countries. There is a second way.

How the sun affects the people

The sun changes the hours of sleep and recreation. In our country, the day of 24 hours is divided into two parts: (1) daylight of many hours, during which we work, go to school, play, eat, and have fun; (2) nighttime of many hours, during much of which we sleep. Our good health depends very much on having a certain amount of sleep night after night, month after month, throughout the year. The regular way in which night follows day helps us to keep regular habits of sleeping.

Can you imagine how tired and irritable you would feel if your habits of sleeping were sharply interrupted every few months? If during several months the sun never set at all, do you think it would be easy to sleep eight or nine hours a day?

And can you imagine how gloomy you would feel if after the three-months-long "day" you were suddenly plunged into a never-ending night! One 24-hour period after another — no sunrise, no sunset, the world outdoors always dark or, at the lightest, bathed in a kind of dull twilight. Wouldn't *you* feel dull too?

Students from other lands who go to the far-northern regions of Norway and Sweden say that is what happens to many of the people there. During the long daylight season of the "midnight sun" some of them become tired and restless, even irritable; during the long dark and twilight season they become gloomy and depressed.

Thus we see two ways in which the people near the Arctic Circle are influenced by the tipped position of the earth as it spins on its axis on its way each year around the sun.

Perhaps you are thinking, "And is the same thing true of the people near the *Antarctic Circle*, except that the seasons are turned around — summer instead of winter, and winter instead of summer?"

It *would* be true, if there were any human beings there. But there aren't any! Turn back again to the tables of Chapter II and to the map of figure 17. What people do you think live nearest to the Antarctic Circle? Do you remember the Ona Indians of Tierra del Fuego? Do they also live in a "land of midnight sun"? Are there any others in the entire Southern Hemisphere?

FIFTH: POPULATION MAPS TELL US WHERE THE PEOPLE OF SCANDINAVIA LIVE

Although we know that some Scandinavian people live north of the Arctic Circle, the map of figure 139 shows us more clearly just how the population is scattered over the whole region. Study the map carefully, remembering that the blackest parts show where most of the people live; the white spots show where almost no people at all live. Now answer the following questions concerning how the numbers in the southern parts compare with those in the central and northern parts:

1. Are the people evenly distributed over the land of Scandinavia?
2. Which of the three countries — Sweden, Norway, or Denmark — has the most crowded population? Which has the second most crowded? What do you think are the chief reasons?
3. Are there tiny areas where the people are greatly crowded together? Name the principal ones. Without reading ahead in the chapter

tell what you think are the most important reasons for this crowding together. Maps 51 and 154 will help you.

4. Are there areas where there are almost no people at all? Exactly where are they? Tell why you think people have kept away from these spots. Maps 141 and 155 will help you.

SIXTH: WHY THE PEOPLE LIVE WHERE THEY DO

Mountains, plains, soil, and people!

The unusual geography of the Scandinavian countries gives us another fine opportunity to learn more about why people live where they do. First let us see what topography ("lay of the land") has to do with it. We can study that problem if we compare heights of land above sea level in different regions with the crowding or scattering of population in the same regions. Let us turn, therefore, and compare the colored map following page 336 with the maps of figures 17 and 139.

First study the problem for the whole of Scandinavia. Where is the low land? The colored map shows that the southern part — especially from about 55° to 60° north latitude — is almost entirely low land, that is, fairly near sea level. All of Denmark, nearly all of Norway south of 60° north latitude, and about one third of the land of Sweden bordering on the Gulf of Bothnia are low.

Where is the high land? That is, where are the mountains?

Norway

Practically all of Norway is covered by a mountain range. Scientists tell us it is one of the oldest masses of mountain land on the earth. Here was the central point, they say, from which the last great ice sheet spread out over Europe. Down from the icy arctic region it spread to where Norway is now. Then, from the Scandinavian mountain range, it pushed its way down the slopes onto the more level European plain. So also, when — 15,000 or 20,000 or more years ago — the temperature over the Northern Hemisphere rose again, the Scandinavian peninsula was the last region from which the ice sheet melted.

Glaciers and streams have worn the Scandinavian range down into the shape of old rounded mountains. Today they are not very high, — 2000 to 5000 feet above sea level in general, —

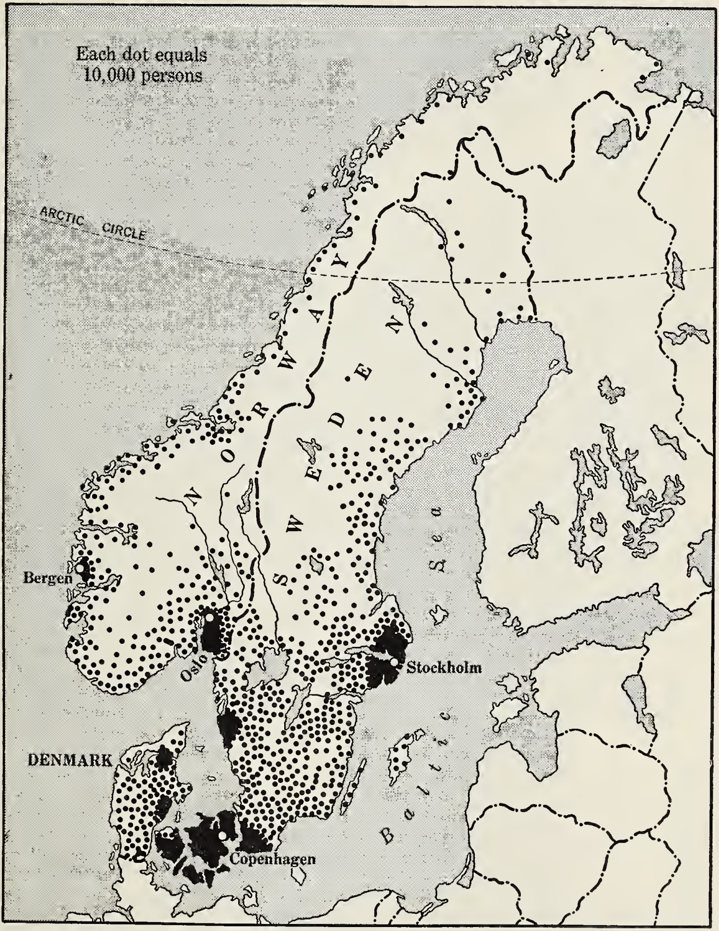

Each dot equals
10,000 persons
ARCTIC CIRCLE
NORWAY
SWEDEN
Bergen
Oslo
Stockholm
DENMARK
Copenhagen
Baltic Sea

FIG. 139. Where the people of the three Scandinavian countries live

but they are nearly bare of good soil. For thousands of years glaciers of ice scraped them bare by pushing their good soil down onto the low lands along the seacoasts. Indeed, it is difficult to find spots larger than ten miles square where the soil is both level and fertile, that is, good for farming. About one fourth of it is covered with forests and vegetation good for pasturing cows.

(See the map of figure 141, which shows the large forestation of Scandinavia.) About 75 per cent of the land is called "unproductive"; that is, on it man can produce little of value. As for Norway, then, almost all its land is high and most of it is bare of good soil.

Sweden

What about the lands of Sweden? The Scandinavian mountain range slopes more gradually down to the Gulf of Bothnia and the Baltic than it does on the Norwegian side of the boundary. As you can see from the colored map following page 336, the land is high — from 2000 to 5000 feet above sea level near the Norwegian boundary line to the west; from 1000 to 2000 feet high in the central region; and near sea level is a large sloping plain from 100 to 200 miles wide along the Baltic and the Gulf of Bothnia.

But even here the old ice sheet did its work of scraping away the rich soil, pushing it into the sea and the gulf and over onto the central plains of Europe. As a result of this, only about one tenth of the land of Sweden is good for farming. But 62 per cent of it is covered with pasture land for cows. Approximately one third (32 per cent) of Sweden is "unproductive."

Lying generally south of 60° north latitude there is one section of Sweden where the land is fairly level and the soil is good. This is the great farming region of the Swedes. Here 80 per cent of the land is cultivated. So much for Sweden.

Denmark

The story of land and soil in Denmark has already been told. We learned that the land is low and fairly level, but the soil is sandy and not very good for grain-raising and general farming.

These facts of heights of land, kind of soil, and the like give us some answers to our question Why do the Scandinavian people live where they do?

First. They, like most people on earth, live on the lower lands, on those nearer the level of the sea. Few live in the mountains, which occupy most of Norway and a large part of Sweden.

Second. The greatest numbers of people live on the seacoasts. *Practically all* of the Norwegians do and a fair proportion of the Swedes and Danes. Why?

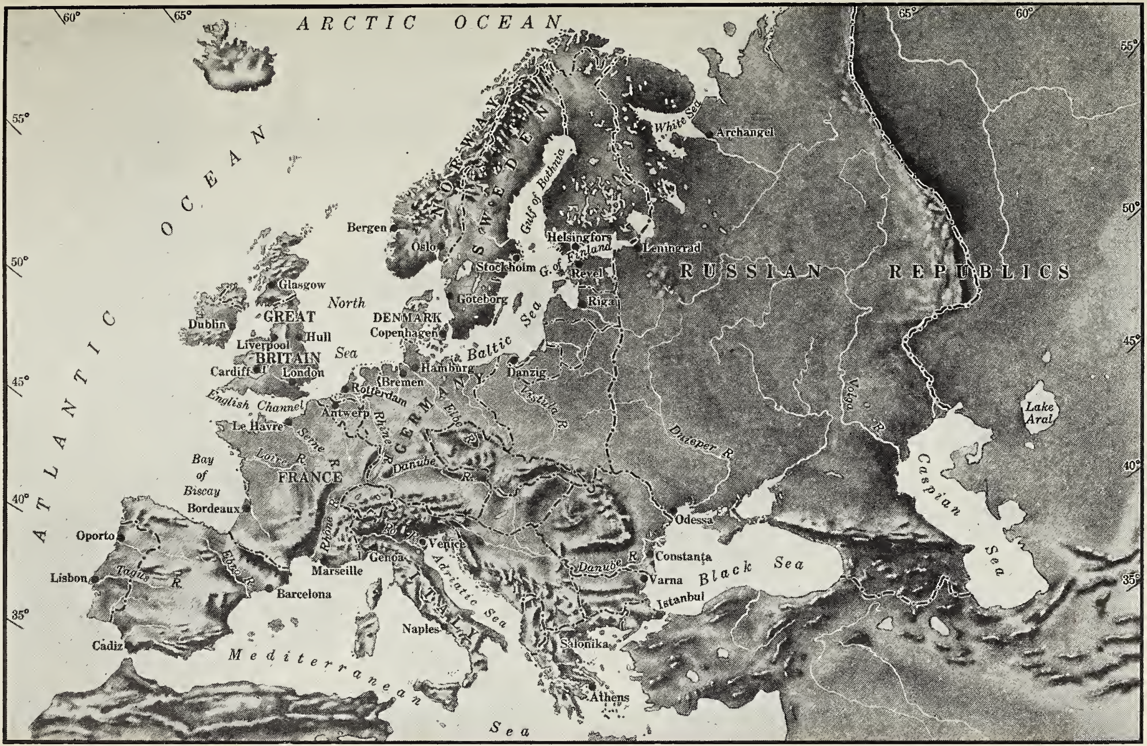

ARCTIC OCEAN
ATLANTIC OCEAN
60°
65°
55°
50°
45°
40°
35°
NORWAY
SWEDEN
Gulf of Bothnia
White Sea
Archangel
Bergen
Oslo
Helsingfors
G. of Finland
Leningrad
Stockholm
Revel
Riga
RUSSIAN REPUBLICS
Glasgow
North
Sea
DENMARK
Copenhagen
Göteborg
Baltic Sea
GREAT BRITAIN
Dublin
Hull
Liverpool
Cardiff
London
Hamburg
Bremen
Danzig
Rotterdam
Antwerp
GERMANY
Vistula R.
English Channel
Le Havre
Seine R.
Rhine R.
Elbe R.
Dnieper R.
Volga R.
Lake Aral
Bay of Biscay
Loire R.
FRANCE
Danube R.
Bordeaux
Caspian Sea
Oporto
Rhone R.
Po R.
Venice
Odessa
Genoa
Marseille
Constanta
Lisbon
Tagus R.
Ebro R.
Adriatic Sea
Danube R.
Varna
Black Sea
Barcelona
ITALY
Istanbul
Naples
Salonika
Cadiz
Mediterranean Sea
Athens

FIG. 140. Relief map showing the principal ports of Europe

SEVENTH: THREE OTHER IMPORTANT OCCUPATIONS OF THE SCANDINAVIANS

1. Mining in Scandinavia

Of the three Scandinavian countries only one has valuable mineral mines. Practically no metal ores at all are found in Denmark, and Norway is not especially rich in minerals. In northern Norway some deposits of iron ore have been found, and there the Norwegians are beginning to turn to mining. Far north in the Arctic Zone, on the Norwegian islands of Spitsbergen, coal has recently been discovered and people have been put to work in mines there. Silver is being produced in mines at Konigsberg; some nickel, copper, lead, zinc, feldspar, and pyrites are also mined. We see, then, that some mining is carried on in Norway. It is safe to say, however, that mining is not one of the important occupations of the Norwegians or of the Danes.

Sweden

Not so in Sweden! Sweden's soil is rich in minerals; in fact, its iron fields, famous because the ore is so pure, are among the most valuable in the world.

Most of this ore is found in the northern region, a large proportion of the mines being beyond the Arctic Circle. In the midland region there are not only iron mines, but it is there that many iron-smelting plants and foundries are found. There are factories in which excellent tools and machinery are manufactured.

What happens to all the iron ore that is mined in Sweden? Do the people of Sweden use it all? No. Millions of tons of it are exported every year. In 1934 over 5,500,000 tons of iron ore were sent to foreign countries and 70,300 tons of pig iron were exported.

Perhaps you are thinking that this amount of pig iron is small compared with the amount of iron ore produced for export. Yes, it is, and the chief reason is that Sweden has not much coal, so necessary for the production of pig iron. Only about 450,000 tons of coal are mined each year. Turn back to figure 49 and compare this small production with the giant coal mining in America, Great Britain, and Germany. However, the important thing to remember is that Sweden has much of the purest and most valuable iron ore in the world, and that many of her people make their living by mining and preparing it.

2. Forests and lumbering in Scandinavia

Denmark

After knowing about the soil of Denmark, it is not surprising to find that there is not much forest land there. Actually only about 6 per cent of the whole area is covered with trees, and most of these are beech.

Norway

A traveler in Norway, however, discovers great numbers of pine, spruce, and other evergreen trees, most of which are in the southern half of the country. About 20 per cent (27,500 square miles) of the land of Norway is forest land, and lumbering has become a very important industry.

But the Norwegian people are wise about their forests. They are not satisfied with forever cutting them down and selling the wood. They do not want their forests to disappear, and of course they would disappear if the lumbermen continued to cut them down without planting new ones. So the Norwegians set up the Norwegian Afforestation Association, which each year plants between ten and fifteen million new trees to replace the ones chopped down. Thus the people who make their living by lumbering will be able to continue to do so as the years go on.

Because of these rich forests many other Norwegians make their living by manufacturing things made of wood. Wood pulp to be used for the making of paper, and paper itself, are manufactured in great quantities. In fact, some of this pulp and paper is exported to our own country to be used in the making of the newspapers, magazines, and books that we read.

Sweden

But again it is Sweden that stands out above Denmark and Norway for its lumbering! About 60 per cent, or 58,000,000 acres, of this country is covered with trees; and this gives work to some

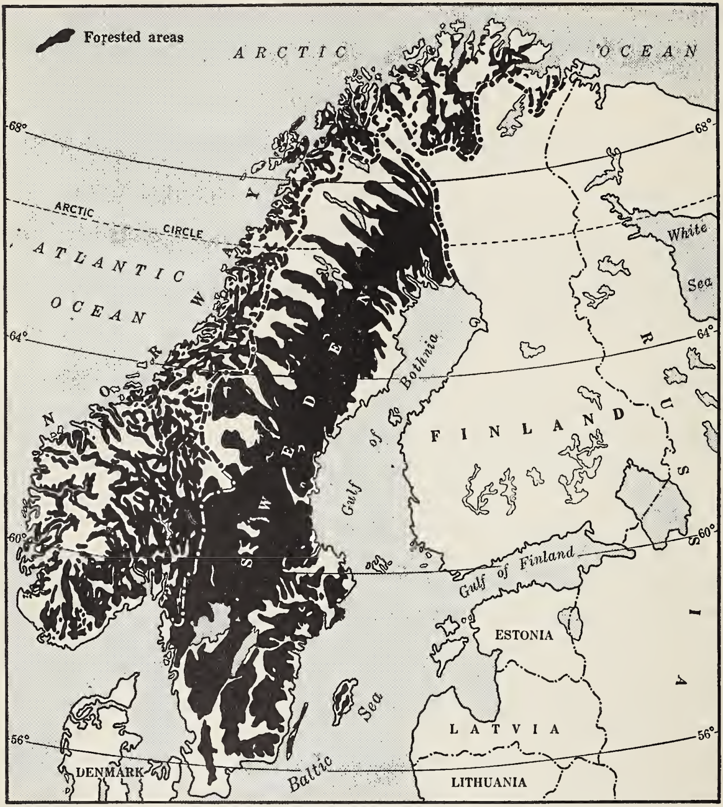

Forested areas
ARCTIC OCEAN
ATLANTIC OCEAN
ARCTIC CIRCLE
68°
64°
60°
56°
NORWAY
SWEDEN
FINLAND
RUSSIA
ESTONIA
LATVIA
LITHUANIA
DENMARK
White Sea
Gulf of Bothnia
Gulf of Finland
Baltic Sea

FIG. 141. From the map you can easily see why lumbering is one of the principal industries of both Norway and Sweden

100,000 men in cutting timber, in sawmills, or in pulp mills. About 400,000 more people have occupations which in some way are related to the timber industry.

Where are these forests? Most of them are north of the 60° north-latitude line. There the trees are cut down, most of them in the snowy winter. The trunks lie on the mountain slopes until the warm spring sun melts the snow and streams begin to flow down the valleys. Then the giant logs slide down the banks into the streams and float down the rivers until they reach the sawmills and factories on the coast. Sawmills are everywhere along the Gulf of Bothnia.

In these mills lumber and timber products are manufactured. The making of furniture and paper has become very important. Perhaps it will surprise you to hear that nine tenths of the sawed and planed wood of Sweden is sent out to be used in foreign countries. Three fourths of Sweden's wood pulp is exported, and three fifths of her paper.

And the Swedish people, like the Norwegians, are seeing to it that the day shall not come when their trees will be all gone. Each year they plant many more trees than they cut down.

3. The coast line and fishing

Now for another surprise — in a way a "geographic surprise":

> *Norway has so many ships that every man, woman, and child in the country could be taken on board!*

Norway, the little country of about 3,000,000 people, has 2,200,000 tons of ships. This is practically as much as Germany with twenty times as many people, twice as much land area, and regarded as one of the great powers of the earth.

"But why," you ask, "has this happened in Norway, the country of the cold far north?"

There are several factors, but the principal one is the coast line of the country. Look at it on the map following page 336. Is it smooth and even, mile after mile, as in the case of so many of the coasts of the different continents? For example, the west coast of South America — and much of Africa also — is so unbroken that there are almost no indentations or harbors where ships can stay safe from the ocean storms.

Not so in Norway! The entire coast line seems to be "one inlet or fiord after another!" A fiord, or fjord (pronounced "fyôrd"), is a long narrow arm of the sea flowing in between steep banks or cliffs. In and out the coast line winds its broken, irregular way from Christiania fiord in the southwest to Varenger Fiord on the Arctic northeast. By a fairly direct line this distance would measure only about 1700 miles; actually, however, the coast line is 12,000 miles long. The scouring that the ice sheet gave the western side of the mountains wore hundreds of little river valleys into the mountain range. Short and steep are the rivers, and down them into the sea have rushed the floods of melting snows. For thousands of years these valleys have been in the making. Deeper and deeper into the land the seas have cut their way. Farther and farther back from the coast the inlets were made. Thousands of islands were left standing above the water. More and more broken and irregular, or indented, became the coast line. Finally, even a thousand years ago, the coast of Norway, and to a lesser extent that of Sweden, became a continuous line of deep inlets, bays, harbors, and narrow passages between islands. Some of the beautiful fiords run from 50 to 100 miles in from the sea (figure 142). It is estimated today that there are 150,000 islands along the Norwegian coast.

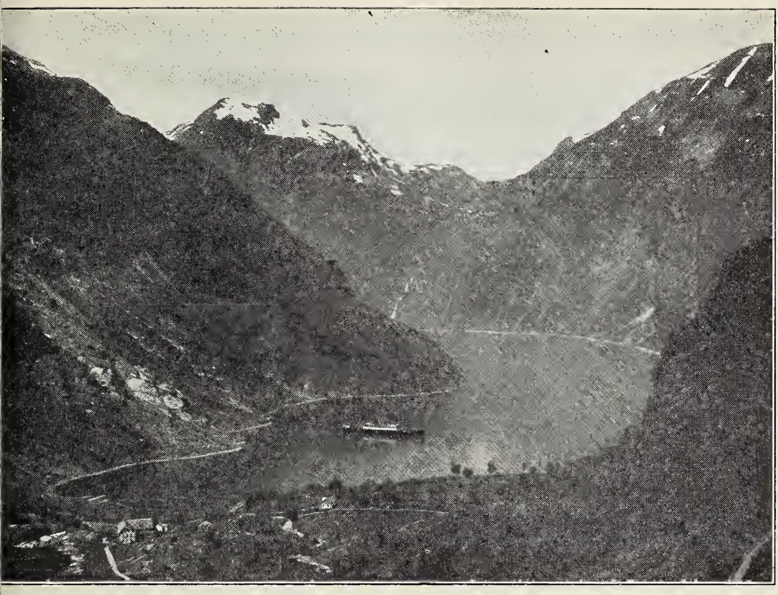
In what kind of work do you think the people living on such a coast are engaged? Can there be any doubt? Probably each of us would answer, "Occupations of the sea!" That is correct. From the beginning people who settled on these shores became fishermen, seaman adventurers on ships, daring explorers.

Again in Hammerfest we find a good example of the hundreds of fishing villages and towns on the coast of Norway. "Everything is fishy!" The people "eat, drink, smell, and breathe fish; the bill of fare is made up of fish, the water tastes of it, and the air reeks of it." Fish! Fish! Fish! Morning, noon, and night, in the long summer and the long winter, year in and year out, everything in life centers about fish. And so it has been for 2000 years or more.

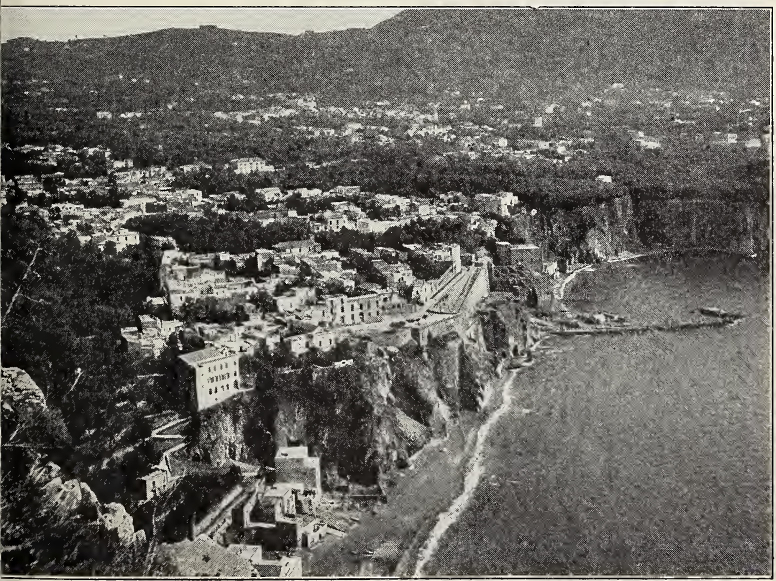
As it is in Norway, so it is in Sweden — there are hundreds of little villages on the narrow belts of low land, close to the shore of the beautiful quiet fiords. From these the people go out into smooth waters and get their living by catching and selling fish. Even Denmark has developed a very important fishing industry which amounts to several million dollars a year.

Warm harbors in Arctic Norway!

"But," you exclaim, "these people cannot fish the year around, can they? The harbors and inlets, the beautiful bays and fiords, must be all frozen over from October to April. They



IG. 142. One of the many quiet, shut-in, and beautiful fiords of Norway. What do these fiords, or "narrow arms of the sea," tell us about the coast line of Norway?



Ewing Galloway

FIG. 143. How does this smooth coast line of Sorrento, Italy, compare with the Norwegian coast line shown above?

must be; this is 60° to 70° north latitude and snow and ice come early in autumn and stay late in spring!"

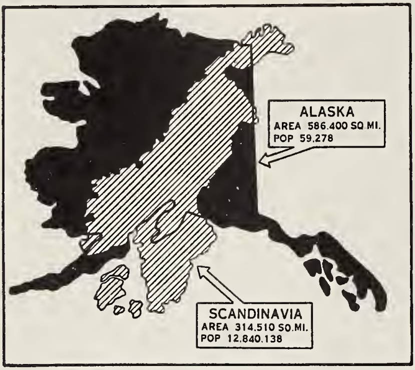


Fig. 144. Why is the population of Scandinavia so much greater than that of Alaska when both are far northern countries?

It is natural for one to think that, because it is generally true in such northern regions. *But it is not true in Norway!* Why is that?

Because of Europe's old friend — the "Gulf Stream"! You know how it warms the British Isles, and helps farming there. Part of this "Atlantic Drift," as it is sometimes called, also warms the waters of Norway. As a result the harbors of Norway even to the region north of the Arctic Circle are never frozen over! The fishing and trading ships can go in and out of the fiords and bays the year round.

Can you understand now why Norway, the little country with so few people, can have 2,200,000 tons of ships? Her whole history made the Norwegians into a seagoing people. Try to imagine how things were on the sea before the days of steam engines, or even of compasses and watches. Remember how ignorant the sailors were of geography — the shape of the continents, the location of islands, the size of seas and oceans. Remember how fearful they were when going out of sight of land because they had no maps or instruments to help them steer a safe course. In such a time would the people in regions with few inlets and bays live much on the sea? No, they would stay off it!

But in Scandinavia — especially in Norway — how different the ways of living were! There, generation after generation, fathers taught their sons the art of sailing. And there, century after century, the people learned how to make better and better ships.

It is not only from the geography of a people that we can come to understand them; we must study their history as well. Let us pause a moment, then, and scan quickly some important facts in the history of the Scandinavians.

HOW THE SCANDINAVIANS BECAME GREAT SEAMEN

To go back far into the history of these Scandinavian peoples is impossible. We do not know how long they have lived in the little peninsula now occupied by Norway and Sweden. Scientists tell us that a Stone Age people were living there 8,000 to 10,000 years ago, that is, from 8000 B.C. to 6000 B.C. — about the time that the cold, freezing weather of the last Ice Age passed away. They are sure that by 1000 B.C. (3000 years ago) these people were farming the thin soil as best they could, raising crops in the short warm growing season. They fished and traded along the coasts of the peninsula. From relics and fossils which have been dug up, from such things as pottery and the remains of houses, roads, and walls, we know that they were a very "advanced" people. They lived in houses in villages and towns. They built fine ships and sailed from the Baltic Sea down the rivers of Europe, and across the other salt waters of western Europe. They worked with copper and bronze tools and made war weapons of those materials.

Hundreds of years passed. As the climate became warmer, many different tribes of people crowded into Europe from Asia and Africa. In the far north there were various tribes of tall, light-haired, blue-eyed people whom we now call *Teutons* or *Nordics*. These included ancestors of the present Swedes and Norwegians, together with the Danes, the Angles, the Frisians, and many tribes later called "German," who settled on the European plain.

From Asia still other tribes — part of an ancient Mongolian race — pushed their way over the Ural Mountains, across what is now Russia, and settled that part of Scandinavia which today we call Finland (see map following page 336). These were darker-skinned, shorter people. From that day to this, their descendants have stayed on there, but even today they are not regarded as Scandinavians.

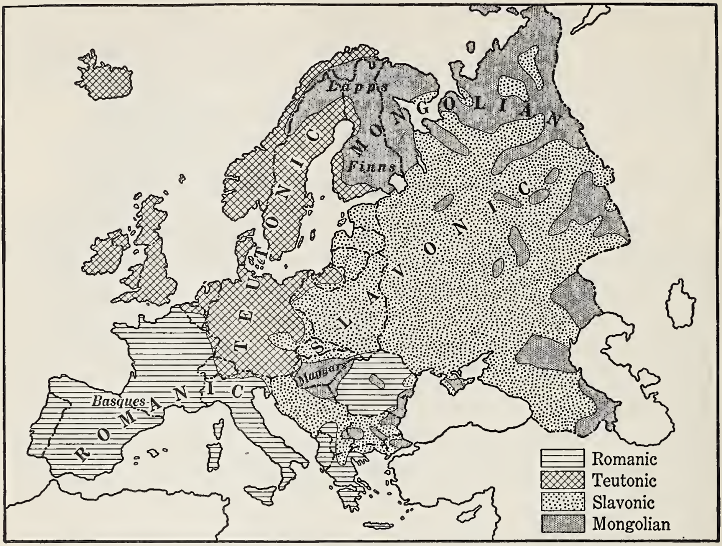


FIG. 145. This map shows the location of the principal races of Europe

During the following 1500 years these several peoples settled down and became farmers and fishermen. They became craftsmen in metal, stone, wood, leather, and other materials. But needing many materials and goods that could not be made in their cold northern region, they went out to other regions to get them. Thus they became great traders also. And because of the geography of the land they became primarily traders on the sea.

THE SCANDINAVIAN COUNTRIES BUILT BY WARS AND TRADE

You remember that by the time of Christ the Romans had conquered all the land around the Mediterranean Sea and extended their empire northward to the lands of the "Germans." For some 600 years and more — from about 200 B.C. to about 400 A.D. — this Roman Empire was a vast region of military conquests and of trade stretching over parts of three continents. From the harbors of southern Europe, eastern Asia, and northern

Africa the great trading and naval ships of Rome sailed all over the Mediterranean and up the western waters, perhaps even to the Baltic. Thus we can be sure that from the 400's to the 600's A.D., while the "Nordics," living still farther to the north, were learning to live a settled life of farming and handicraft, they also "went to school" to the trading Romans, their other neighbors.

What the Norsemen Called "Vikings" Did

Then came astonishing new happenings in the history of Europe. Within a short time, in the 700's and 800's A.D., these Scandinavian fishermen-traders, who had been living hidden away from most of the known world, became the most feared and most famous people of Europe. Their long experience in building and sailing ships in and out of the fiords, channels, and bays of the Scandinavian coast had made them skillful and daring seamen. For hundreds of years before European inventors had given the sailors compasses, sextants, and other instruments to help them steer their ships, and long before good maps were available, these Norsemen had learned to sail their little 60-foot ships across rough seas. Hundreds of miles out of sight of land, even through dense fogs, these men made their way, telling directions by the feeling of the wind, the movement of the tide, the color of the water. Instead of sailing with great caution from one island to another near by or along the coasts, as most seamen had done for centuries, they fearlessly headed their ships out across the North Sea down the English Channel, even around the Spanish peninsula and into the Mediterranean.

Historians tell us that these Viking sea rovers, having crossed the North Sea and the North Atlantic Ocean, had discovered and settled Greenland by 981. By the year 1000 not less than three of their great leaders had sailed westward clear across the Atlantic Ocean and had explored and even made settlements along the northeastern coast of North America as far south as our own New England. This was 500 years before Christopher Columbus and the Cabots came.

Why did the Vikings go on these long sea expeditions? Chiefly to raid their neighbors; to seize their property. This they did all over Europe from the British Isles and the west coast of Europe across the central German territory as far as Russia. In fleets of boats with 30,000, even 40,000, fighting men these raiders sailed up the Seine, Rhine, Oder, Weser, and other rivers of Europe. As they went they captured towns, they killed and robbed the people whom they met. In 787 one such large expedition descended on the people of the British Isles. In 845 another large expedition went to France, where Paris was captured and sacked. Indeed every region of Europe learned to dread the "Vikings," as these sea rovers called themselves.

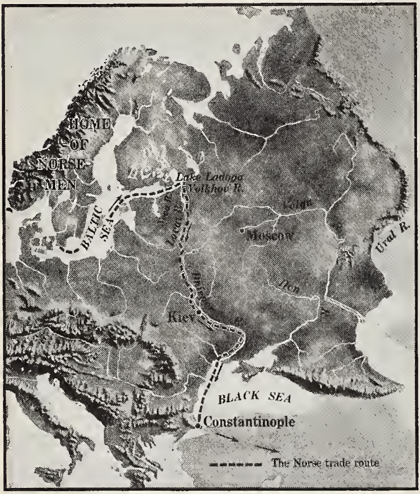


FIG. 146. The route to Constantinople used by the Norse traders

They are famous in our histories today not only because of their raids and conquests, but even more because they became the great traders and settlers of more modern times. East and west over Europe, from the British Isles to Constantinople, north and south from the Baltic to the coast of Africa, these Norsemen developed great "water routes of trade." Figure 146 shows one of the most famous ones, the one you read about in Chapter XI.

On each such trip the Norse trading chiefs took along bands of fighting men with spears and swords. If people did not behave to suit them, they made war upon them. As there were no roads or railroads, this water route became the main highway of the north. To control it meant to have control of practically all trade. The Norsemen had control of it and kept control by building forts along the way. As soon as the route was thus made secure they set out to conquer the country round about.

While some of these tribesmen were raiding and trading in the eastern part of Europe, others were doing the same thing in the west. In the late 800's the Norsemen attacked and partly conquered northwestern France. During the 900's and 1000's many Norsemen settled down there and developed farms, villages, and towns. This region of theirs became one of the leading provinces of France. It was called Normandy and the Norse leaders became known as the Dukes of Normandy. It was one of these, Duke William, who in 1066 crossed the English Channel with a great fleet and defeated the Saxon King Harold at the famous Battle of Hastings. As a result Duke William made himself King of England. Ever since he has been known as William the Conqueror.

But we must not think that these Norsemen were fearless warriors only. They helped to build European civilization in peaceful ways, through trading and the development of agriculture and industry. In France and in the British Isles, as well as in their home lands in Scandinavia, their handicraftsmen became famous for their skilled work. During the hundreds of years that passed after 1000 their architects built some of the most beautiful buildings that have appeared in the history of the world. Their writers helped to develop the French, English, and German, as well as Norwegian, Swedish, and Danish languages.

When Did the Scandinavians Set Up Separate Countries?

The peoples of western and southern Europe were becoming modern "nations" between 1000 A.D. and 1500 A.D. That was true of England, of France, of Spain, of Portugal. In each one most of the people could understand one another fairly well because each had a "national" language. In each one the people began to regard themselves as belonging to one nation; they felt that they were "English," or "French," or "Spanish," or "Portuguese." In the book called *Changing Governments and Changing Cultures* you will read the story of how these modern countries were made. Here we need merely to remember that all over Europe strong warrior leaders rose to conquer their weaker neighbors and build up powerful families of "nobles." They became "lords" over bigger and bigger estates and finally made themselves "kings over the neighboring territory." In each region the people slowly became loyal to one ruler — a king.

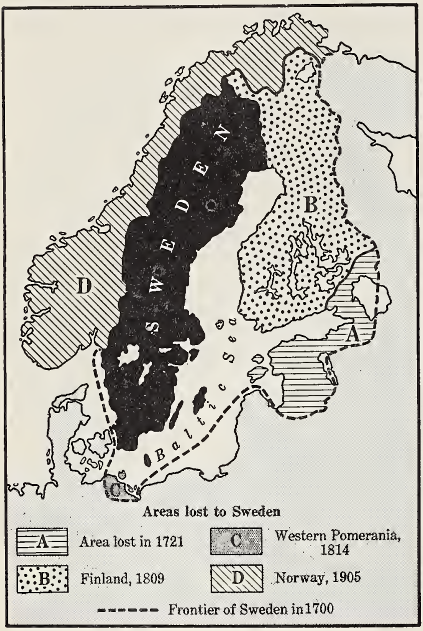


Fig. 147. Sweden in 1700 was much larger than it is today

While this was happening in the south and west of Europe, the warrior leaders of the Scandinavian peoples of the Far North were doing exactly the same thing. The Viking raids stopped, and much of the trading and settling by the Scandinavians slowed down. For a long time most of the Europeans forgot that there were such peoples as Scandinavians.

During that long period, however, the leaders of the "Danes," "Norwegians," and "Swedes" were fighting among themselves for the control of the entire peninsular region. Part of the time one was independent of the others; part of the time they were all under one rule. In the 1300's Norway and Denmark were united for a while under the Danish Queen Margaret. From 1397 to 1523 the Swedes were included also. Then the Swedes broke away and became one of the great military powers of all Europe. This was especially true while King Gustavus Adolphus ruled, 1611–1632. At one time in the early 1800's Sweden not only controlled all of Norway and Sweden but Finland and lands east and south of the Baltic as well. Then, one by one, she lost all of these other lands and today she stands as shown on figure 147.

Meanwhile Norway was governed as a part of Denmark most of the time from about 1400 to about 1800. Then until after 1900 Norway was transferred to Sweden. All through the century the

Norwegians rebelled against being under Swedish rule. They said they were "Norwegians" and should be an independent country. But not until 1905 did they succeed in setting up an independent government. In that year King Charles, the second son of the Crown Prince of Denmark, was made king of Norway. Since that day each of the three Scandinavian countries has been independent.

Denmark, Norway, and Sweden are today very modern countries in every way. Although they kept out of the World War, their people had very difficult times in those and the following years. Nevertheless their sufferings and injuries were far less severe than those inflicted upon Great Britain, France, Germany, and the other warring countries. Today, in spite of their small land area and population, they are among the most important countries in the world.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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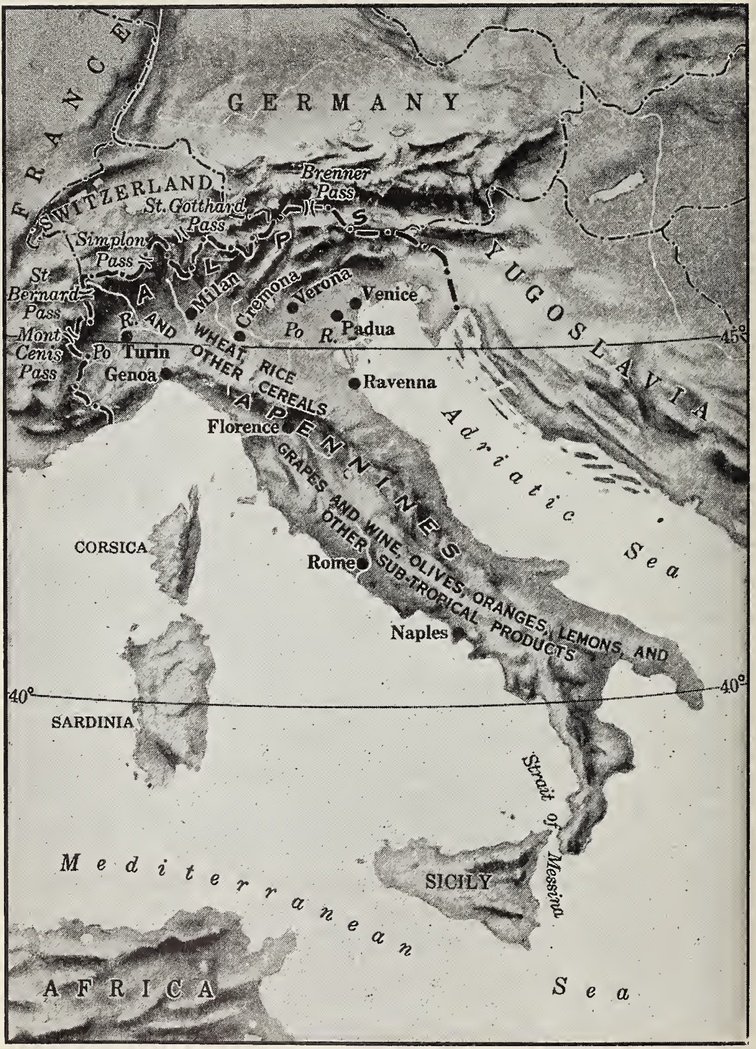

GERMANY
FRANCE
SWITZERLAND
St. Gotthard Pass
Brenner Pass
Simplon Pass
St. Bernard Pass
Mont Cenis Pass
ALPS
YUGOSLAVIA
Milan
Cremona
Verona
Venice
Padua
Po R.
Po R.
Turin
Genoa
Ravenna
Florence
WHEAT, RICE AND OTHER CEREALS
APENNINES
GRAPES AND WINE, OLIVES, ORANGES, LEMONS, AND OTHER SUB-TROPICAL PRODUCTS
Adriatic Sea
CORSICA
Rome
Naples
SARDINIA
40°
40°
45°
Strait of Messina
SICILY
Mediterranean Sea
AFRICA

FIG. 148. Relief map of Italy, showing chief cities and principal products

CHAPTER XIV

ITALY: AN AGRICULTURAL COUNTRY THAT TRIED TO BECOME INDUSTRIAL

"THE MIDDLE OF THE EARTH"

No doubt you know that the peoples who lived around the Mediterranean during ancient times sometimes called this sea the "middle of the earth." The very word "Mediterranean" was made up from two Latin words which mean "middle" and "earth." And "middle of the earth" it must have seemed, with most of the great countries of that day right around it — Egypt, Assyria, Phoenicia, Crete, Greece, and Rome.

"Middle of the earth" as a description of this body of water and the lands around it is just as fitting today as it was in those early days. To find out why, look at two maps — the world-trade map (figure 26) and the map of Europe (following page 336). How clearly Europe, located as it is between Asia and the Americas, stands out as the very heart of the trading world. And the Mediterranean Sea, through which thousands of ships pass from northwest Europe into the Suez Canal and Red Sea on their way to Asia, still seems to stand in the center of things.

ITALY'S FORTUNATE LOCATION

It is important to recall this central position of the Mediterranean on the world-trade map as we turn to a brief study of Italy, for Italy's location on it is one of the most important things to remember about her.

Notice, on the map following page 336, how the boot-shaped peninsula nearly divides the great inland Mediterranean Sea into two parts. For about 200 miles the narrow strip of land extends southeast toward Africa. Sicily, the great island which continues the land beyond the boot, is less than 100 miles from the African continent. Scientists are convinced that some millions of years ago the peninsula and islands which today make up the country called Italy were part of one long range of mountains which formed a land bridge joining Europe to Africa. Then in some way the seas flowed in over the lower parts, leaving the "boot," Sicily, and the other islands standing above water about as they are today.

Today, then, Italy is favorably located right on one of the greatest waterway trade routes of the world — through the Mediterranean Sea. Each year thousands of freight and passenger ships pass through that sea taking goods and people from port to port, from country to country, from continent to continent.

As you have already learned, most of these ships fly the flag of Great Britain. This is Britain's great trade route. Her ships pass from the British Isles around Spain (by the entrance at Gibraltar), through the Mediterranean into the Suez Canal, and thence to the Red Sea. This route is called "the life line of the British Empire," because the very lives of many people of Great Britain and other parts of the Empire depend upon the safe and regular passage of their ships through it. If the navies of other countries should sink these British merchant ships, millions of people in the Empire would be in danger of starving. A "life line" indeed!

Do you see from the map of figure 62, how close Italy is to this life line? How easy it would be for her submarines and other naval vessels to torpedo and destroy British ships as they pass through the Mediterranean! Do you understand why Great Britain's government officials so anxiously watch what Italy's officials do?

More about location

So much for Italy's central position in the Mediterranean. Note quickly a few other facts about her location on the earth.

First. Italy is in the very southern part of Europe, extending from about 38° to 47° north latitude. This places her in about the same latitude as Spain, southern France, and the central states of our own country.

Second. Italy's land joins four other countries — in the north, Switzerland and Germany; on the northwest, France; on the northeast, Yugoslavia. These are Italy's "neighbors" today, and she watches three of them very carefully — France, Germany, Yugoslavia. What if they should become her enemies! For a long long time governments in Italy have quarreled with governments of her neighbors, especially about land. Even today each one is jealous of the other, and trouble brews over the slightest misunderstanding.

Third. But one of the most important things about Italy's location is the fact that she is almost completely surrounded by seas. To the west of the long narrow peninsula are the Ligurian and Tyrrhenian Seas; to the east, the Adriatic Sea; to the south, the Ionian Sea. Seas! Seas! Seas! nearly all around her.

But does not that mean that if Italy has an indented coast line she probably has fine seaports? Italy does have a few excellent harbors and a few large port cities. There are Genoa in the north (625,000 people); Naples on the west coast (860,000 people); Palermo, capital of the island of Sicily (400,000 people); Venice, island city of 260,000 people; and Trieste (243,000 people).

Fourth. There is another fact about the land of Italy that is very important, that is — its shape! Not only is Italy a peninsula; it is a long *narrow* peninsula. So narrow is it — about 100 miles wide at the most! — that there is *no spot in it more than 60 miles from the sea.* What does this mean for the transportation of goods? Would it be quick and cheap? Yes, only a short haul over railroad or auto truck highway is necessary to carry crops or manufactured goods to a port city. Contrast this with the 1000 to 1500 miles of travel from interior parts of our own country to the oceans; or with the 2000 to 3000 miles from interior Russia to her seaports.

It is clear, then, that Italy is small in land area (119,703 square miles). Yet, with 42,000,000 people she is the fourth most densely populated country of Europe. That means that her people must live very crowded together. They do indeed. Notice in figure 149 that although Italy has almost the same population as France, she has only about half as much land. On the average there are nearly 350 people to the square mile in Italy. France has only about 200 to the square mile.

Recent increases in population

There is another important fact to remember about the population of Italy. Not only is it large for such a small land area, but it is increasing rapidly year by year. Turn back to figure 3, which shows how swiftly the populations of the chief industrial countries have grown since 1820. Notice that this has happened in all industrial countries, especially since they have taken up the machine ways of living. Of the six principal ones, the United States, Russia, and Japan have grown most rapidly. But the number of Italians has also increased very rapidly. In 1820 her people numbered about 19,000,000; in 1933, more than 42,000,000. When we ask whether Italy has enough land for its people, we must keep this great growth in mind.

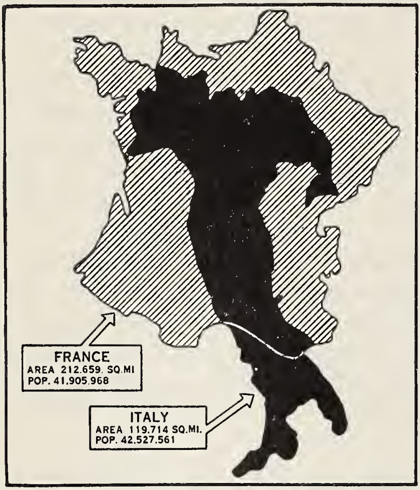


FIG. 149. Italy, with only half as much land as France, has almost the same population

WHAT IS HAPPENING TO ITALY

Today, then, this interesting boot-shaped peninsula is the home of the Italian people, "42,000,000 strong." They have one government, they speak one language, and they play a very important part in the affairs of our modern world. From their ancestors have come some of the greatest music, literature, painting, sculpture, lawmaking, and engineering in the history of the world. A traveler through Italy today sees one of the most beautiful countrysides on the earth. Moreover, he sees what seems to be a people busily and happily at work. Some are cultivating the mountain and hillside fields. Some are running factories, driving motor trucks or railway engines, and operating power plants. Some are loading and unloading ships in fine harbors. Some are carrying on business in busy cities. Outwardly at least Italy seems to have recovered from the crushing effects of the World War.

But inwardly many of the people are greatly troubled. Like the French, the British, the Germans, the Japanese, even the Americans, they feel uneasy, uncertain, a little afraid. Afraid of what? Of not having jobs; of not being able to earn enough to keep alive. Of war with other peoples. Of being thrown into jail or being killed or being sent out of the country. As in certain other countries, something is wrong with the smooth running of the lives of the people.

What is it that is wrong? It is very difficult to understand what is wrong, and we shall not be able to explain it fully in this book. We shall continue to study this problem year after year in our social studies. About all we can do now is to learn something of the history of how things became as they are. First let us see how Italy became a country and how the people who live there came to call themselves "Italians."

How Italy Became a Country

Italy as a separate country or nation is very new — really only 70 years old. The name comes from "Italic" tribesmen, who, more than 2500 years ago, cultivated fields throughout the central part of the peninsula, from where Rome is down to the "heel of the boot." And from that time on, the peninsula was known as "Italy." But until very recently Italy was not really a separate country.

When and how did she become a country? To answer that question we must look back at the empire of Rome as it was 2000 years ago and sketch quickly what took place after that in this peninsular region. Remember that about the time of Christ those who lived there — indeed, in all the lands around the Mediterranean — were under the government of the Roman Empire. Certainly at that time there was no real country of Italy, and the people of the peninsula did not regard themselves as Italians, but as Romans.

In fact, they did not become real Italians for more than 1800 years after that time! During all that long, long period people were living on farms and in villages and towns and cities all over the peninsula. Generation after generation, craftsmen worked at their trades and shopkeepers bought and sold their goods. Bankers and lawyers, artists, doctors, and government workers, road-builders and ditch-diggers — all worked at their jobs. Thus during all of these 1800 years several million people lived in the peninsula called Italy and were engaged in all kinds of occupations.

But during most of that time the people were not under one government; they did not all speak the same language; they did not regard themselves as "Italians." Instead, the people spoke many different dialects. They were ruled by the "Duke of This" or the "Count of That." The peninsula was divided among many small "Kingdoms" or "Duchies." Which ones there were and how long they lasted depended on the shrewdness as well as the skill in battle of the dukes and counts and kings and other leaders.

We do not have space to tell the full story of everything that happened from the time of the Roman Empire until our own day; we can only mention a few outstanding events.

As you know, the Roman Empire began to break up in the 300's and 400's A.D. For fully a thousand years after that time all of Europe was in a state of constant turmoil.

Tribe after tribe of warlike invaders — Germans, Franks, Goths, Vandals, Lombards, Anglo-Saxons, Danes, Scandinavians, and others — wandered around in various parts of the Roman Empire and finally settled down to build permanent homes.

Certain groups, as you know, gradually built up Great Britain, France, Portugal, Scotland, and Denmark, and organized other regions and peoples into separate countries. Other groups, such as the Lombards, remained within the Italian peninsula and intermarried with the peoples living there.

From the time of the last of the Roman emperors, 476 A.D., until nearly 1800 A.D., the mixed groups of people in the peninsula were ruled by outsiders. Here are a few of them:

Year	
476–493	Odoacer, a leader of the German soldiers at Rome, ruled as "Patrician" of Italy.
493–526	Theodoric the Great ruled over Italy as the King of the Ostrogoths.
526–about 790	At various times a Byzantine Emperor, Lombard chiefs, and other petty rulers divided Italy between them.
800–814	Charlemagne, King of the Franks, ruled as "Emperor of the Romans."
800's–900's	Greeks, Saracens, petty nobles, French and German rulers, seized all or different parts of Italy at various times.
962–1002	Otto the Great (a Saxon) became Holy Roman Emperor, and so ruler over all of Italy.
1000's–1300's	"Holy Roman Emperors" from Germany ruled most of the time.
1350–1500	Rich nobles of the northern cities — Venice, Milan, Florence, Genoa, Pisa — ruled the regions around their cities and at times larger areas. No one of them was powerful enough to unite all of the people of the peninsula under one government.
1500–1800	Kings of France, Austria, and Spain conquered and ruled various sections of the peninsula and the large islands (Sicily and Sardinia). The entire period was one of foreign rule and anarchy, conquest, and sacking. There was no real united Italy. The Pope of Rome ruled the central part, called "Papal States," from time to time.
1800–1860	Several times during these years oppressed people of Europe, dissatisfied by the bad conditions under which they were living, rose in revolt against their aristocratic and extravagant rulers. The great French Revolution beginning in 1789 lasted for several years. The spirit of rebellion spread to other countries. In 1830 and 1848 revolutions arose in France and Germany and swept over much of Europe, Italy included. Gradually the people in the peninsula were stirred up to demand the right to govern themselves.

At last the scattered sections of Italy were to be bound together under one government. After about 60 years of struggling, several great leaders, working together, unified the country. They were especially:

a. Mazzini, the leader of the younger Italians, who believed in making Italy a country with the kind of democratic government that Great Britain and America were working out. The aristocrats feared and hated him so much that Mazzini had to live in England most of his life.

b. Cavour, a democratic, unselfish patriot of Italy. He was the Prime Minister of the "Kingdom of Sardinia" (which included the northwest part of the peninsula of Italy) for many years. He did more than any other one man to weld the separate states of the peninsula into one country. He was one of the most famous political leaders of Europe in the 1800's.

c. Garibaldi, an intense patriot and lover of Italy. He was a dashing, handsome soldier, the adored hero of the Italian people. He was friend and ally of Mazzini and Cavour, pushing their plans forward by his military campaigns.

d. The democratic kings of Sardinia, especially Victor Emmanuel II, who ruled from 1849 to 1878.

It was during Victor Emmanuel's reign of almost thirty years that one by one the separate states of the peninsula were added to his territory. This was accomplished largely through the work of bands of brave patriots under these four leaders — Mazzini, Cavour, Garibaldi, and Victor Emmanuel II. Fighting with France in 1859 and 1860, Garibaldi and his troops helped her to defeat Austria, after which the northern states — Tuscany, Parma, Modena, and Romagna — revolted and joined Sardinia. In 1860 Garibaldi at the head of his famous band of fighting "Red Shirts" conquered "the Two Sicilies" (Sicily and the Kingdom of Naples) and joined them to Sardinia. By November, 1860, the whole of Italy, except Venice and Rome, was united under King Victor Emmanuel.

Six years later Prussia, as an ally of Italy, defeated Austria. In the election following the war 647,246 of the voters of Venice, which had belonged to Austria, voted to become a part of

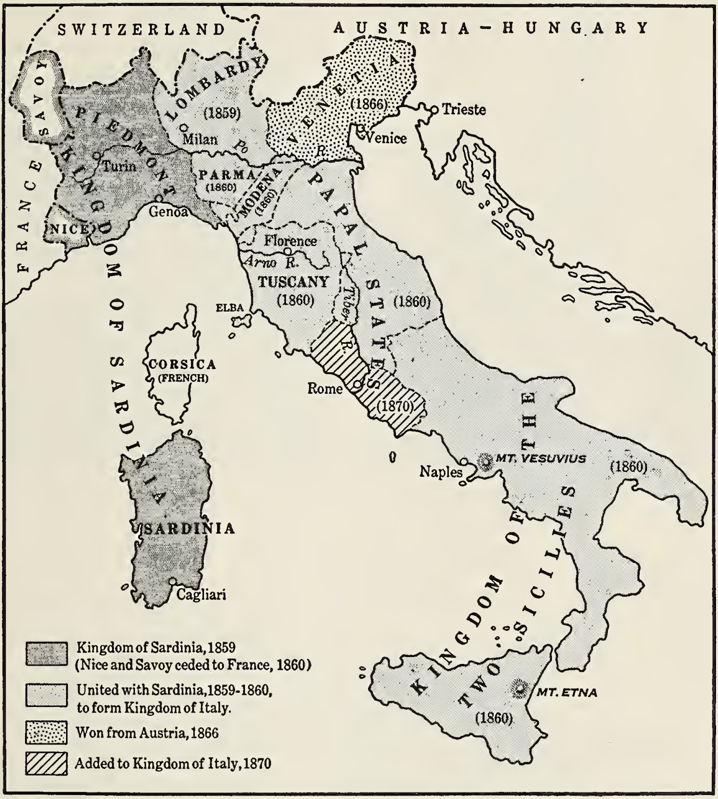

SWITZERLAND
AUSTRIA-HUNGARY
FRANCE
SAVOY
NICE
KINGDOM OF SARDINIA
PIEDMONT
LOMBARDY
(1859)
Milan
Po
Turin
Genoa
VENETIA
(1866)
Venice
R.
Trieste
PARMA
(1860)
MODENA
(1860)
PAPAL STATES
(1860)
Florence
Arno R.
TUSCANY
(1860)
Tiber R.
ELBA
CORSICA
(FRENCH)
Rome
(1870)
SARDINIA
Cagliari
KINGDOM OF THE TWO SICILIES
MT. VESUVIUS
Naples
(1860)
MT. ETNA
(1860)
Kingdom of Sardinia, 1859
(Nice and Savoy ceded to France, 1860)
United with Sardinia, 1859-1860, to form Kingdom of Italy.
Won from Austria, 1866
Added to Kingdom of Italy, 1870

FIG. 150. The Italian states in 1856

the new Italy; only 69 persons voted to stay under Austria! This goes to show how strong the desire of the people of Venice was to be governed by their own leaders rather than by foreigners. In 1870 the people of Rome, after the Italian troops had captured the city, made the same kind of decision. With that, all of the region from the Alps to Sicily was brought under one government.

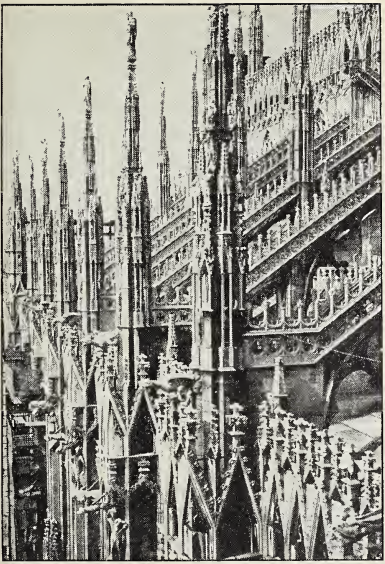
Italy thereupon became one independent unified country. For most of the time since then it has been ruled by a single government, under a king and a parliament.

How Great Writers Helped To Make a Common Italian Language

Thus a great step in building a unified Italy had been taken by 1870. That step was to bring all parts of the peninsula under one "Italian" government. Until about 1920 that government was much like Great Britain's. There was a king (who had very little real power to rule the people) and a parliament, made up of a Senate and Chamber of Deputies (somewhat like our Congress) which made and carried out the laws. The senators and deputies in the parliament were really the friends and representatives of the manufacturers, the bankers, the big landowners, and the merchants, not of the peasants and craftsmen and clerks — the "common people." In fact, in 1870 the common people of Italy had very little share in government. Almost none of them could read or write. Most of them were ignorant of matters of government, that is, of the problems of community and state. If they voted, they voted blindly, choosing the politician whom they liked best or who persuaded them that he should be elected.

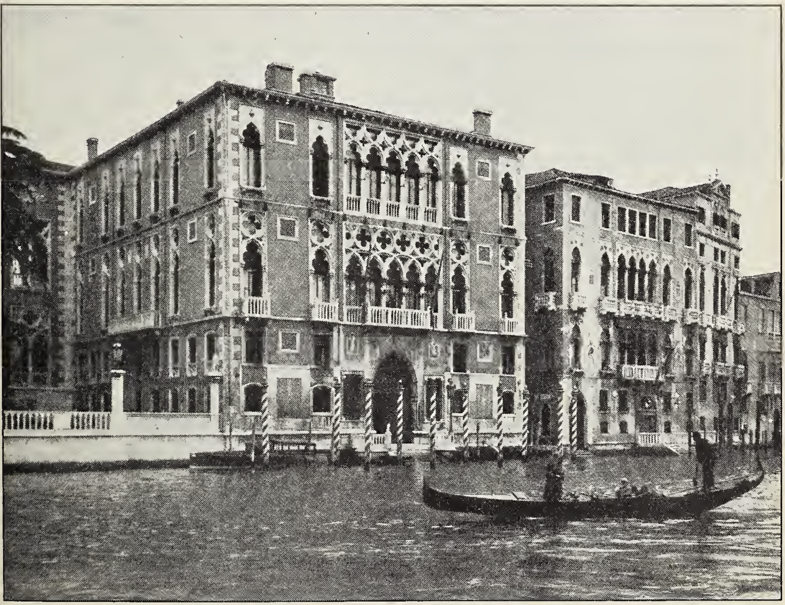
But another and perhaps the most important step in making Italy a really unified and democratic country was getting the people to feel that they were all "Italians" and really belonged to one country. How could any such thing be done except by uniting them all under one king and one parliament? One way was to get them to speak the same language. As long as some spoke the dialect of one region, say, of Lombardy or Venice or Savoy or Tuscany, and others spoke another dialect, perhaps that of Sicily or Naples, the people could not *feel* they were "Italians" — one people. To teach all the people to speak a single common "Italian" language, then, was an important way to get those people to understand one another and to feel that they were all part of the same country.

For several hundred years an Italian language had been in the making. As early as the 1300's an Italian poet named Dante had written a great book, *The Divine Comedy*, in which he used the best words spoken by the common people of Tuscany and some other regions of Italy. It was one of the first books of Italy not written in Latin, the language of the old Roman Empire



A part of the roof of the Milan cathedral showing the wonderful carving

The campanile, or bell tower, designed by Giotto for the cathedral at Florence



Ewing Galloway

Beautiful palaces line the Grand Canal in Venice, which became known as the "Street of the Nobility." Posts in front of the palaces display the colors of the owners

Fig. 151. Three examples of the beautiful Italian architecture of the Renaissance

and the Catholic Church. As time passed, more and more educated people all over the peninsula began to read Dante and to use his fine words. Two other important writers were Petrarch and Boccaccio. Together with Dante, these men by their new writing influenced other poets, writers, orators. They too spoke and wrote the words of the new language. About 1500, that is, 200 years after Dante, another writer Machiavelli, also from Dante's city of Florence, wrote a book in the growing Italian language. This book, called *The Prince,* was also widely read by educated people and by other writers and poets. It too helped the better educated people of different parts of Italy to speak a common Italian language, and so to feel themselves Italians.

These men are only a few of the many writing people who stopped using the Latin language or the dialects of the separate regions of the peninsula. Then slowly during the 400 years that passed, the 1500's, the 1600's, the 1700's, the 1800's — the Italian language became perfected. By 1870 when Italy became a unified country almost all the educated people spoke it.

And so, although there have been some changes made in it, the present Italian language is still the language of Dante, and this is the language which is taught in the Italian schools today. Nevertheless there are still many dialects in Italy, each somewhat different from the others and from the Italian language.

AFTER 1870 ITALY'S LEADERS WANTED TO BUILD AN INDUSTRIAL COUNTRY

The unifying of all Italy after 1870 speeded up the building of factories, mines, power stations, railways, telegraphs, and telephones. The leaders, seeing what was happening in Great Britain, France, Germany, and other industrial countries, wanted to hurry Italy along the same road. Their desire was to make Italy a powerful industrial country, with an empire of colonies, with a rich world trade, with a big army and navy. But to do that was very much more difficult for Italy than for the United States or Great Britain or France or Germany. Why?

THE GEOGRAPHY OF ITALY

To understand why, it is necessary to study more about the geography of the Italian peninsula. By its geography, of course, we mean such things as its climate (temperature, rainfall, and winds), its topography, its natural resources, and the effects of these upon the occupations and other ways of living of the people.

Climate, topography, and farming

Two mountain ranges and a river

In many countries mountains and rivers do much to decide how the people live. That is true in the case of Italy's mountain ranges and her important river valley. The mountains are the high rocky Alps which form the boundary in the north and west, and the Apennines which cover most of the "boot," running northwest to southeast down the peninsula. The river is the Po, which rises in two small lakes high up in the Alps, works its way down the mountains, and flows through a long broad valley into the Adriatic Sea.

Now the Alps and the Po river together give Italy its most important farming region — the wide valley of the Po. Notice this valley on the map of figure 148, a broad area extending around the 45° parallel for nearly 300 miles. For many thousands of years countless little streams have made their way down the mountainsides carrying along stones and gravel and sand. Season after season these materials have been broken into finer and finer pieces until they became almost pulverized. By the time they were carried out over the plain at the foot of the mountain and out to the Adriatic Sea they had become rich mud or soil. Each year this mud piled up a little deeper. Each year at the mouth of the river there has been growing a bigger and bigger "delta," farther and farther out into the sea.

A rich grain-growing region in the north

As a result of this working of Nature for Man, these northern Italians who live in the Po valley have been given one of the richest farming soils in the world. Figure 148 reminds us that great crops of wheat, rice, and other grains are grown there.

Not only is the fairly level and fertile land favorable for cereal farming, but the climate of this region is just right too. The high Alps which surround the Po plain at the north and west keep out the cold winds, leaving a mild temperature and the kind of growing season such crops need. The rainfall too is just about what it should be — that is, from 30 to 40 inches fall each year.

	Italy	France
Wheat	12,421,000	13,206,000
Rye	272,000	1,663,000
Barley	481,000	1,795,000
Oats	1,047,000	8,202,000
Corn	3,617,000	831,000
Potatoes	1,002,000	3,477,000
Sugar beets	227,000	764,000

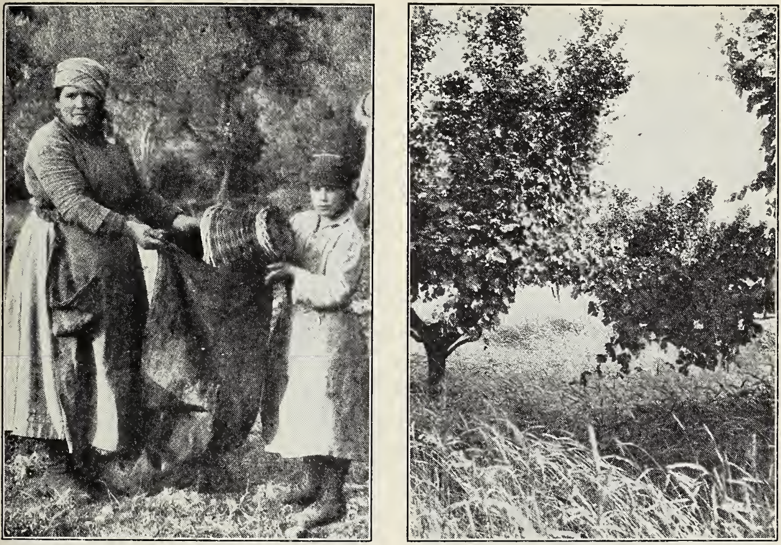
The accompanying table shows us what the hard-working Italian people have done with these favorable geographic conditions. They produce nearly as much wheat and four times as much corn as does France with her much larger land area and about the same population. However, in such other agricultural products as potatoes, rye, oats, barley, and sugar beets, Italy is far behind her neighbor, France.

Subtropical products of the peninsula

But Italy is a country of agricultural contrasts! In the north wheat, rice, corn, and silk are produced. Along the mountain "backbone" of the peninsula, from the center to the heel of the boot, grapes, olives, oranges, lemons, and other subtropical products are raised. This can be done because throughout much of the peninsula the climate is subtropical. This means a summer temperature above 70° Fahrenheit and a winter temperature that seldom goes below freezing; in the very southern part of Italy a below-freezing temperature is very rare indeed.

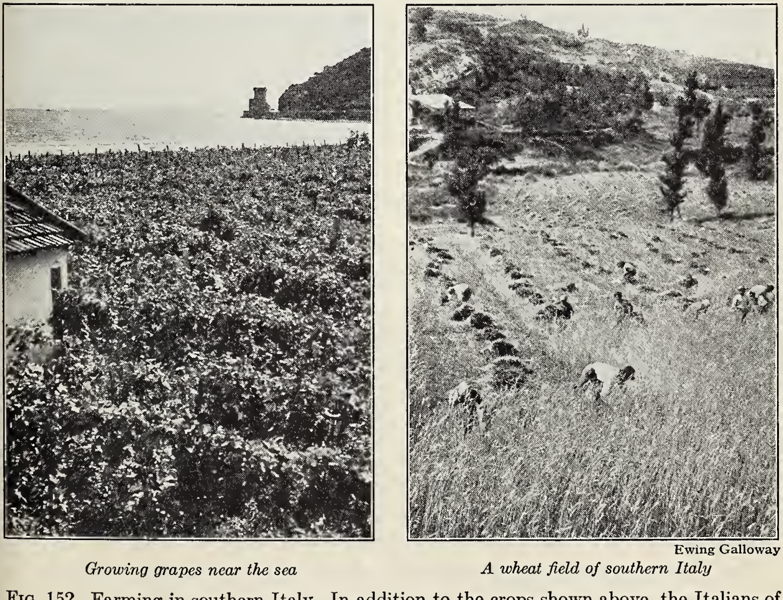
What causes this mild temperature? Several things taken together, such as (1) Italy's location in the extreme southern part of the continent of Europe; (2) the narrowness of the peninsula (hence the nearness of all its parts to warm seas on three sides); (3) the lowness of the Apennine Mountain range (seldom more than 5000 feet above sea level).

Because of the mild climate and fairly good soil and because the hills slope down gradually, the farmers of Italy have been raising fruits for thousands of years. One sixth of the country's land is planted with vines, particularly grapes. Naturally wine-



Gathering olives near Rome

Growing grapes, mulberry leaves, and wheat in one field



Ewing Galloway

Growing grapes near the sea

A wheat field of southern Italy

Fig. 152. Farming in southern Italy. In addition to the crops shown above, the Italians of southern Italy raise oranges, lemons, figs, dates, melons, and other subtropical products

making has been one of the chief industries. Many millions of gallons are produced each year. The Italian wine as a whole, however, is not of as high quality as that of other countries, such as France. However, in the growing of subtropical fruits — for example, olives, figs, and melons, as well as oranges and lemons — Italy has become one of the world's chief producers.

This is a brief glimpse of the way the geography of Italy has made her into an agricultural country. A wide variety of things is produced. In some cases — vegetables and fruits, for example — enough for the Italian people and some left over for sale to other countries are raised. But in other cases, in spite of hard work and favorable geography, the Italians still have to import foods — wheat, for example — from foreign countries. Again the reason for this is that Italy has more people than her agricultural resources can feed.

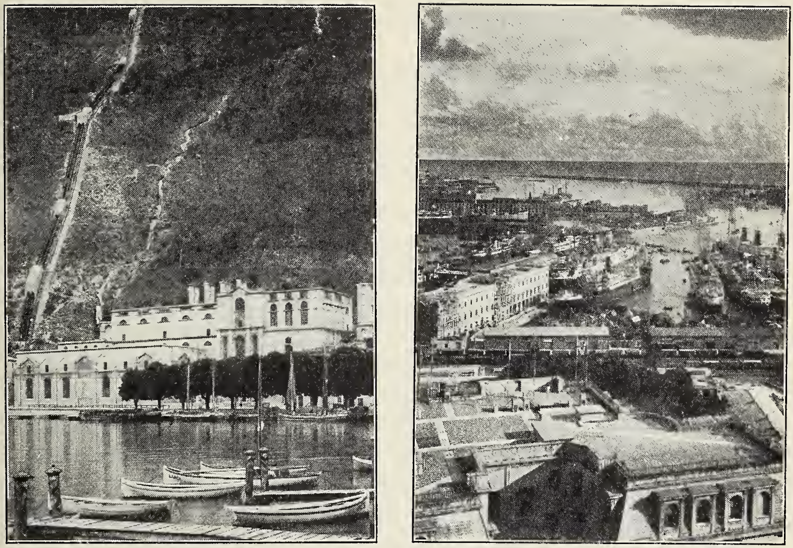
BUT WHAT ABOUT MANUFACTURING?

Were the leaders wise in the 1870's and 1880's in trying to make Italy into an industrial country? If you read the newspapers these days, you know that Italy is now called one of the great "industrial" countries of the world. She certainly has a big army and navy and seems to be taking an important part in deciding the affairs of the earth.

Has Italy the necessary natural resources?

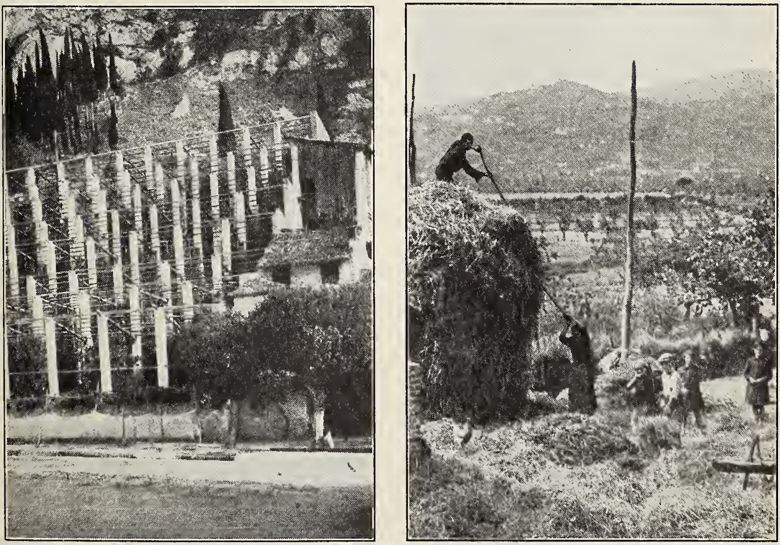
We know now that in order to carry on manufacturing industries a country must have certain raw materials and fuels. It must have skilled engineers and workers. It must have wealthy men who are willing to spend their money in building great factories, power stations, and the like. Italy has had the owners of wealth, the engineers, and the workers, but not the raw materials. As a result she has had a more difficult time to develop industries than some of the other industrial countries.

Take coal or other fuels, for example. Some kind of fuel is absolutely necessary to make power to run the machines and trains and trucks and the like. But Italy has almost no coal or oil. She has managed to help herself a good deal in recent years by



A modern hydroelectric plant

The harbor of Genoa



Ewing Galloway

A lemon orchard on a terrace

Farming in northern Italy

Fig. 153. In northern Italy industry, as well as agriculture, plays an important part in Italian life

building dams and generating electric power stations on the rivers of the Alps. But, although this electric power is being used instead of millions of tons of coal each year, nowhere near enough power is being generated to run her factories and other industrial enterprises.

Take iron and other metals. Italy has a very small supply of iron and other minerals (except sulphur, of which she was for a long time the world's chief producer). Nevertheless she is trying to develop iron and steel industries, which depend so much on large supplies of iron ore.

Take cotton. Italy has built spinning and weaving mills in which tens of thousands of workers spin cotton yarn and weave cotton cloth. For that she needs enormous quantities of cotton. Does she raise it within her own territory? No, she depends on Egypt and other countries where cotton can be grown.

Or take rubber. To make automobiles, rubber tires, and many other industrial products she needs huge amounts of raw rubber. Does she produce it? No, every bit must be brought into Italy from distant Brazil, from Netherland India, or from other tropical places.

Another example of interdependence

Thus we see that Italy, like most industrial countries, depends very greatly on other peoples and other regions for her raw materials. Some of these are in Europe; some are in other continents.

Lacking large supplies of coal and iron, and other necessary raw materials, there is only one thing she can do—buy them from other countries. But to do that, of course, her people must have money. To get money they must be able to sell to other countries things that those countries need. That, Italy has tried to do for many years. She has tried to grow things from the ground, and manufacture goods in larger amounts than are needed at home, so that she could export what was left over. But she has had a harder and harder time to find markets for these products, especially because other countries export the same kinds of things. For example, Japan manufactures and sells cotton cloth to other countries, and so does Italy. But because Japan's people have such a poor standard of living, they can sell cloth at much lower prices than can the Italians.

So it was that Italy's leaders in 1870 realized that she lacked the natural resources in fuel, in metals, in cotton and rubber, in manganese and other raw materials, to make of her a reasonably strong industrial nation.

Nevertheless in spite of these known facts, they tried to industrialize Italy. In the half century after Italy really became a unified country, business men developed many crafts and industries. By 1910, most of the several million people living in a dozen cities, particularly in northern Italy, depended on manufacturing for a living. There were hundreds of factories producing silk and cotton cloth. More rayon (imitation silk) cloth was manufactured in Italy than in any other one country on the earth. In northern Italy there were a few iron and steel mills, some shipbuilding yards, some airplane and automobile plants, some hosiery and garment and shoe factories. In various cities vegetables, olives, olive oil, beet sugar, macaroni, and other foodstuffs were prepared for the market. Thus, by 1910, particularly in the northern Italian cities — Milan, Genoa, Florence, Venice, Trieste, Bologna, Ravenna — a great variety of industries had been developed.

In spite of all handicaps, Italy seemed well started on the way to building a great manufacturing or industrial nation with a prosperous world trade, an army and a navy, and — who could be sure? — a great empire.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT VI

HOW THE WORLD WAR CHANGED THE EARTH'S GREATEST INDUSTRIAL REGION

In previous chapters we have studied carefully the ways of living in eight European countries and the way that four of them — Great Britain, France, Germany, and Russia — built up empires. In Chapter XV we shall study the geographic factors that made Europe the greatest industrial and commercial region in the world. Throughout this study our attention has been centered mainly upon one or another of the single countries and, for the most part, upon their development up to the time of the World War.

In Chapter XVI we shall sum up the facts that we have already learned concerning the dependence *of European countries upon one another; that is, we shall continue the study of the* interdependence *of countries which we began in* Our Country and Our People. *We shall try to understand the international system of transportation and exchange of goods which the Europeans have developed since 1850. We shall see the countries of Europe exchanging food, raw materials, and manufactured goods with one another. We shall see to what extent the people in one industrial country are dependent for their living upon those of another country.*

We shall ask other important questions; for example, Were there dangers in this growing interdependence? *Was it possible that the system of transportation and trade might break down?*

In August, 1914, these European countries plunged into a great war with one another, which affected the lives of people throughout the entire world. Nothing else has happened in modern times that is of so great importance.

In Chapter XVII we shall inquire concerning the war itself — how it upset the life of Europeans, how it changed the governments of Germany, Russia, and other countries. We shall get a glimpse of the destruction brought about by the war — of the breakdown of manufacturing, transportation, and trade, and of the terrible cost in life and property.

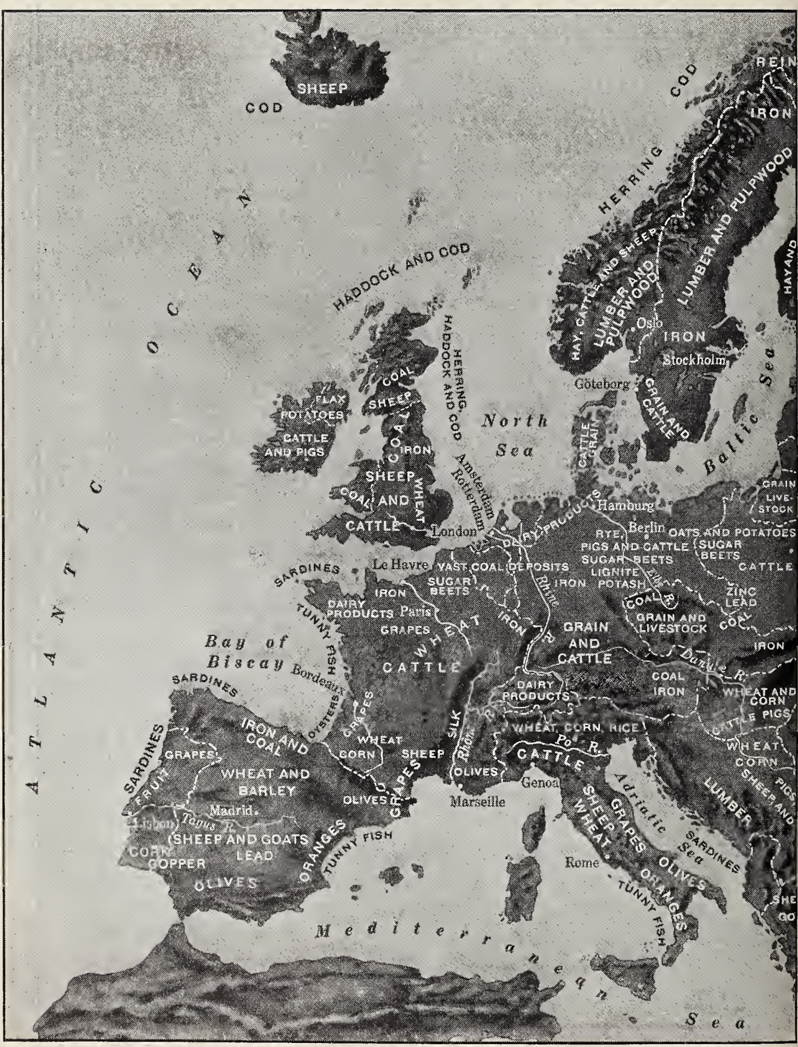
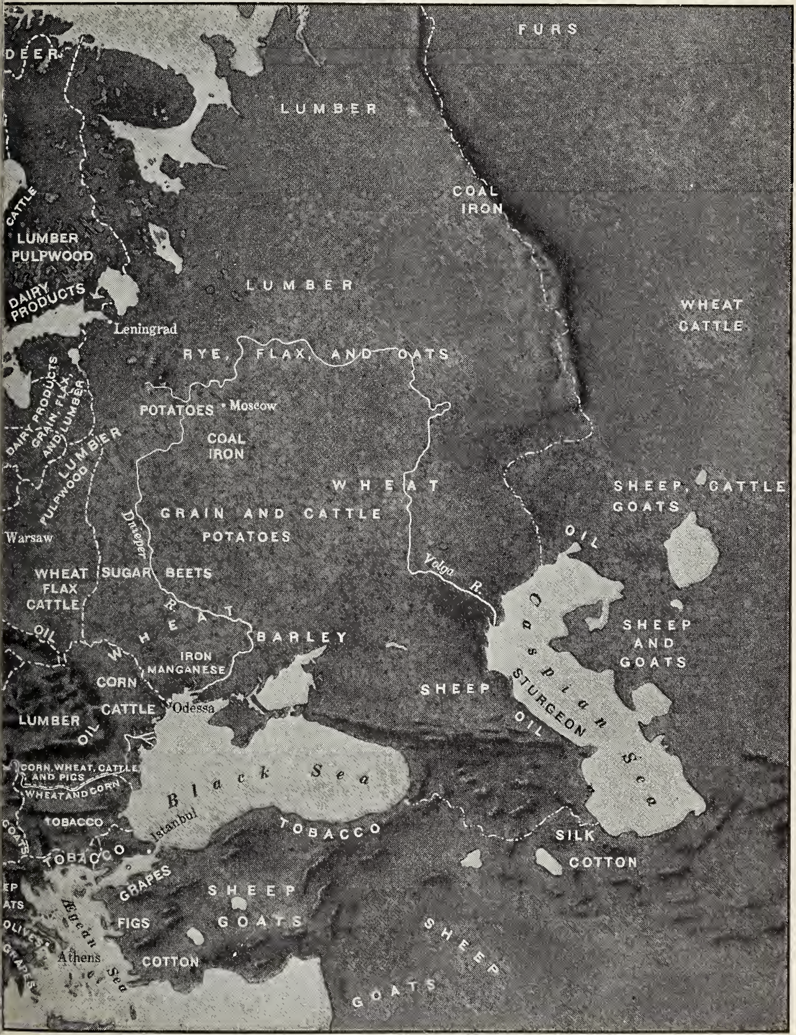

SHEEP
COD
COD
REIN
IRON
HERRING
ATLANTIC OCEAN
HADDOCK AND COD
HAY, CATTLE AND SHEEP
LUMBER AND PULPWOOD
LUMBER AND PULPWOOD
LUMBER AND PULPWOOD
HAY AND
Oslo
IRON
Stockholm
Göteborg
GRAIN AND CATTLE
HERRING HADDOCK AND COD
COAL
SHEEP
COAL
IRON
FLAX
POTATOES
CATTLE AND PIGS
North Sea
CATTLE GRAIN
Baltic Sea
Amsterdam
Rotterdam
SHEEP
COAL
AND
WHEAT
CATTLE
London
DAIRY PRODUCTS
Hamburg
GRAIN
LIVE-STOCK
Berlin
RYE
OATS AND POTATOES
PIGS AND CATTLE
SUGAR BEETS
SUGAR BEETS
CATTLE
LIGNITE
POTASH
SARDINES
Le Havre
VAST COAL DEPOSITS
SUGAR BEETS
IRON
Rhine
IRON
ZINC
LEAD
COAL
COAL
Elbe R.
IRON
DAIRY PRODUCTS
Paris
TUNNY FISH
GRAPES
WHEAT
IRON
GRAIN AND LIVESTOCK
GRAIN AND CATTLE
Bay of Biscay
Bordeaux
CATTLE
R.
IRON
Danube R.
SARDINES
OYSTERS
GRAPES
DAIRY PRODUCTS
COAL
IRON
WHEAT AND CORN
PIGS
CATTLE
SILK
IRON AND COAL
WHEAT, CORN, RICE
SARDINES
GRAPES
WHEAT
CORN
SHEEP
Rhone
Po R.
CATTLE
WHEAT
CORN
WHEAT AND BARLEY
FRUIT
OLIVES
GRAPES
OLIVES
Genoa
Marseille
SHEEP
WHEAT
GRAPES
Adriatic Sea
LUMBER
SHEEP AND
PIGS
Madrid
Lisbon
Tagus R.
SHEEP AND GOATS
LEAD
CORK
COPPER
OLIVES
ORANGES
TUNNY FISH
Rome
SARDINES
OLIVES
ORANGES
TUNNY FISH
SHE
GO
Mediterranean Sea

Fig. 154. Europe showing


FURS
DEER
LUMBER
COAL
IRON
CATTLE
LUMBER
PULPWOOD
DAIRY PRODUCTS
LUMBER
WHEAT
CATTLE
Leningrad
RYE, FLAX, AND OATS
DAIRY PRODUCTS
GRAIN, FLAX, AND LUMBER
POTATOES
Moscow
COAL
IRON
LUMBER
PULPWOOD
WHEAT
SHEEP, CATTLE
GOATS
GRAIN AND CATTLE
POTATOES
Dnieper
Warsaw
OIL
Volga R.
WHEAT
FLAX
CATTLE
SUGAR BEETS
WHEAT
Caspian Sea
OIL
BARLEY
SHEEP
AND
GOATS
IRON
MANGANESE
CORN
SHEEP
STURGEON
CATTLE
Odessa
LUMBER
OIL
OIL
CORN, WHEAT, CATTLE AND PIGS
WHEAT AND CORN
Black Sea
TOBACCO
Istanbul
TOBACCO
SILK
GOATS
TOBACCO
COTTON
GRAPES
EP
ATS
SHEEP
Aegean Sea
FIGS
GOATS
SHEEP
OLIVES
GRAPES
Athens
COTTON
GOATS

location of the chief products

CHAPTER XV

EUROPE BEFORE 1914: THE GREATEST INDUSTRIAL AND COMMERCIAL REGION OF THE WORLD

We need to summarize the "geography" of Europe

In the preceding chapters we have read the stories of how the leading countries of the world, up to the time of the World War, invented machines and mechanical power, and by means of these transformed ways of living in many parts of the world.

In 1914 Europe was mining a vast share of the world's coal and iron ore, and it was making much of the world's steel and manufactured goods. We have seen that it was raising a great deal of the world's food — more than 80 per cent of the potatoes, more than half of the wheat, over 90 per cent of the rye, 24 per cent of the cattle, nearly 90 per cent of the beet sugar, and more than 50 per cent of the oats and barley.

Such illustrations prove beyond doubt that *Europe in 1914 had become the greatest industrial and commercial region in the entire world.*

What made possible this astonishing development? Our next problem is to answer that question. To answer it we must study the geography of Europe as a whole. We must study the continent and its people. We must sum up our knowledge of the climate, the soil, and the minerals, and we must inquire concerning the people's use of scientific knowledge.

Four Reasons Why Europe Became the Manufacturing and Trading Center of the World

The first reason: location in a stimulating and productive climate

No reason is of greater importance than this one: Europe, like the United States, lies in the stimulating and productive climate of the North Temperate Zone.

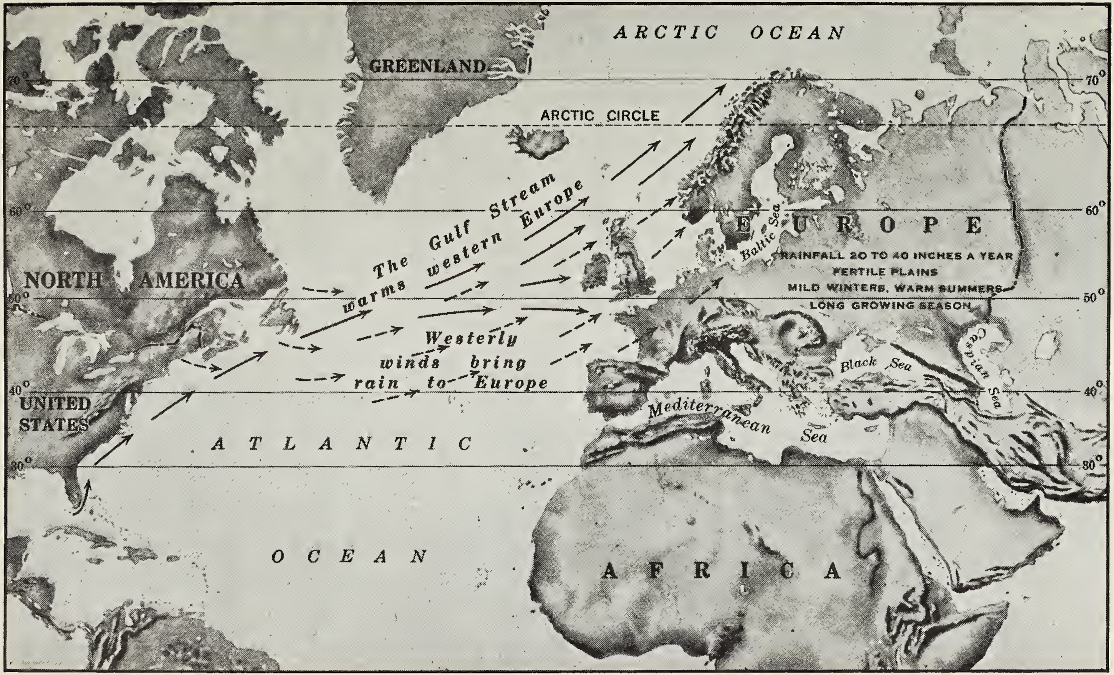

ARCTIC OCEAN
GREENLAND
ARCTIC CIRCLE
70°
60°
50°
40°
30°
NORTH AMERICA
UNITED STATES
The Gulf Stream warms western Europe
Westerly winds bring rain to Europe
ATLANTIC OCEAN
EUROPE
Baltic Sea
RAINFALL 20 TO 40 INCHES A YEAR
FERTILE PLAINS
MILD WINTERS, WARM SUMMERS
LONG GROWING SEASON
Black Sea
Caspian Sea
Mediterranean Sea
AFRICA

FIG. 155. This map explains why Europe has a mild climate and enough rainfall for fine crops

From your earlier studies you know that three things are true of most parts of the temperate zones:

1. Rain falls in fairly large quantities in all seasons of the year, and the winds bring changeable weather.
2. The year is divided into definite seasons, winter being clearly different from spring, and autumn and summer from each of the others.
3. The temperature changes every few days. Some days in winter are cool; others very cold. Some summer days are warm; others very hot.[1]

These conditions are found in Europe just as they are found in the United States.

Look carefully at the map of figure 155. You will see that Europe lies farther north than the United States. While most of the United States lies between the north latitudes of 30° and about 46°, most of industrial Europe lies between 40° and 60°.

Notice that Great Britain, Germany, and northern France, for example, lie about as far north on the earth's surface as the icy regions of northern Canada.

Yet the climate of Europe is much like that of the United States. Throughout the north-central United States in July the temperature will average between 72° and 80°. Most of Europe in July has a temperature between 65° and 80°, with an average temperature of about 70°.

How then can we explain why Europe, lying so much farther north than the United States, has a climate so much like that of the United States? The Gulf Stream, that warm ocean current of surface water that flows northeastward from Florida across the Atlantic Ocean, helps to explain it. Part of this warm stream passes along the western coast of Europe. The westerly winds in passing over the Gulf Stream become warmed and in turn warm the coast and even the interior of Europe. If it were not for the Gulf Stream and the westerly winds playing over the Atlantic, northwestern Europe would be as icy as northern Canada or northern Siberia.

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[1] See Chapters III and XIII of *Our Country and Our People* for a more thorough study of this matter.

The absence of high mountains on the coast also a cause of the favorable climate

Look again at the map following page 336. Note that north of 50° there are few high mountains in Europe. The Urals, which are the boundary line between Europe and Asia, are the only ones of real importance. Thus the warm wet westerly winds from the Atlantic are free to sweep thousands of miles across north-central Europe during all seasons of the year. Europe as a whole, therefore, is actually a warmer place in which to live than much of North America, in spite of its being located farther north.

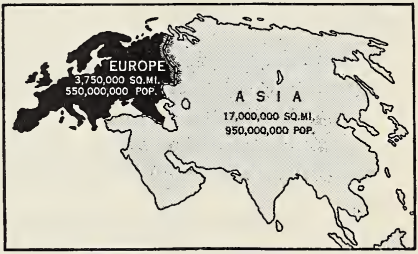


Fig. 156. Europe is small when compared to Asia. It is sometimes called a peninsula of Asia. Is such a statement correct?

The absence of mountains in north-central Europe has another important effect — rainfall is very evenly distributed throughout the land; much more so than it is in the United States.

Thus the winds that blow over the waters warmed by the Gulf Stream affect Europe in two ways: (1) they make her climate warm, and (2) they carry rainfall to her broad level fields — even as far as the Ural Mountains.

The second reason: Europe has vast natural resources

1. *How large is Europe?*

Things seem large or small only when they are compared with other things. If Europe is compared with the United States, it will perhaps seem large; if it is compared with a large continent such as Asia, it will seem small (see figures 156 and 157). All of us would probably say that the United States is large. Then Europe is too; since it is slightly larger than the United States in size.

Is Asia large? Of course. Then Europe is small, for it is only about one fourth as large as Asia. It is only about one third as large as Africa, and only about half as large as North America or South America. (See Appendix, Table II.)

2. *Europe's great acreage of level fertile land*

Study the map following page 336. Note the vast lowlands stretching from France and Belgium on the west to the Ural Mountains on the east. Note the following facts about these lowlands:

1. The absence of high mountains in central and southeastern Europe.
2. The large amount of low, fairly level land and the small amount of high plateau land.
3. The absence of dry, sandy deserts.
4. The large number of broad, fertile river valleys.

These lowlands form *the greatest single food-raising plain in the world — about 2,660,000 square miles in area.* In your study of *Our Country and Our People* you learned of our own great central plains — the vast garden that produces nearly 60 per cent of the world's corn and nearly one seventh of the wheat.

PER CENT OF WORLD'S AGRICULTURAL PRODUCTS PRODUCED BY EUROPE AND THE UNITED STATES

Products	Europe	United States
Wheat	46	19
Potatoes . . .	62	7
Rye	92	2
Swine	29	24
Sheep	34	6
Beet sugar . .	88	11
Corn	12	65

But the European plain is an even richer garden spot. Merely a glance at the food maps of figures 96, 97, 98, and 99, and the table above is enough to convince one of Europe's supremacy as a producer of food.

Of the basic food materials used in the Western world, the United States exceeds Europe only in the production of corn. Europe is not a corn-producing nor a corn-using region. The United States raises 60 per cent of the world's corn.

Summing up the production of food: Europe leads the world in the amount of food products raised per square mile.

3. *The land of Europe is rich in coal and iron*

To become the world's greatest industrial region Europe needed fuel and raw materials. You have learned that she has them both in large quantities. Look ahead to figures 160 and 162 in Chapter XVI. Two coal and iron regions are shown in black on these maps. They form the great industrial region of Europe.

This region and the corresponding region of the United States produce more than 75 per cent of all the coal of the world. And of these two Europe produces and uses more coal than does the United States.

Consider coal: little Britain alone produces more coal than any other nation of the world except the United States. This is an astonishing fact because Great Britain is insignificant in size compared to other important coal-producing countries. Though only about one thirty-second as large as the United States, yet England is the world's coal-miner.

Consider iron: France and Germany produce nearly one quarter of the world's iron.

4. *Among other raw materials Europe lacks oil, copper, nickel, tin, and other minerals*

Europe has coal and also the water to make hydroelectric power, but she lacks oil. In a recent year European countries imported 62,000,000 barrels of oil from other countries.

Europe also lacks many of the materials necessary to an industrial country; for example, manganese, tin, vanadium, nickel, copper, tungsten, silk, rubber, and shellac. These must be imported from Asia, Africa, Central America, Canada, New Caledonia, and South America.

Summing up, we see that Europe has vast resources: (1) a large amount of level fertile land, particularly favorable to farming, and (2) rich stores of coal and iron, the two materials that are absolutely necessary for manufacturing. Like the United States, however, she lacks many other minerals that she needs. For these Europe is dependent on regions lying outside her own boundaries.

The third reason: Europe's large population, ready to work

We learned that Europe was small in land area compared with the other continents.

But if one considers its population, Europe becomes very important (see Table II in the Appendix). Although its area is only a little over one fourth that of Asia, it has nearly half as many

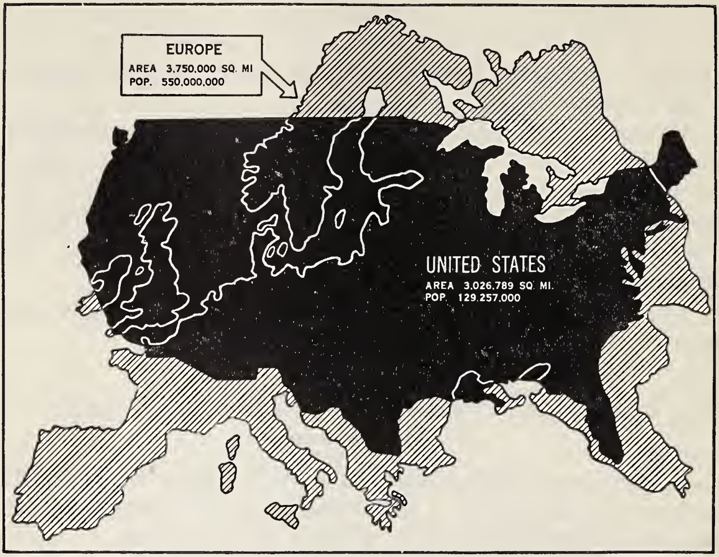


FIG. 157. Although Europe is but little larger than the United States it has more than four times as many people

people. It is only about one half as large as North America but contains nearly four times as many people. It is a little more than one half as large as South America but contains nearly six times as many people.

Because Europe has made good use of its natural resources and has so many people it has been able to take and keep the lead in manufacturing and trade. But one other important fact should be remembered — its people not only are *numerous*, they also work very hard.

Nearly everybody works. In busy times women and children work with the men in the fields and even in the factories. To provide food, clothing, and shelter for 550,000,000 people in an area not much larger than the United States it is necessary that everybody work, and work hard. Europeans have learned that they can continue to live only by using all the daylight hours and by taking care not to waste their resources — their fields, their fertilizers, their coal and other minerals, and their animals.

Perhaps it might be better to say that Europe has many people who *must* work hard. The changing climate forces them to do so. In the fertile river valleys of India and southern China the climate is fairly warm the year round, and crops can be raised one after another throughout the year. But in northern France, in Germany, in Russia, in England, and in other parts of Europe, the winters are cold, so it is necessary to be prepared for them ahead of time.

Because of the necessity to prepare for the cold seasons which come every year, the people of Europe have been forced to think up new and faster ways of preparing food and clothes and houses. But more than that, they have been forced to plan their work and to look ahead, for each changing season brings with it fresh worries and different problems.

So the Europeans not only have had to work hard, but they have had to struggle to keep ahead of ever-changing nature.

The fourth reason: Europeans learned how to use science in the invention of machines and engines

As you know, the Industrial Revolution began in England. The invention of the steam engine and of the textile machines is regarded as the first definite beginning. American inventors also offered many new ideas, Frenchmen added many inventions, and the Germans added more, particularly those dealing with chemical and electrical processes. In the nineteenth century new inventions, and new ways of transportation, manufacturing, and communication, spread rapidly from country to country.

The very short and simple list of inventions in figure 33 gives only a suggestion of the thousands of new ways of doing things. Because of these, people have been able to make clothes for themselves more rapidly and in greater amounts than before. They have been able to provide lasting and warm houses to shelter them from the changing weather. They have been able to travel rapidly from place to place, both on land and on sea.

In short, within the past 200 years Europeans and their descendants in America and other continents have made remarkable strides in mastering nature. This use of scientific knowledge, therefore, was an important reason why Europe became the greatest single manufacturing and trading center of the world.

Summing up: The reasons for Europe's development are like those for the development of the United States.

1. Stimulating Climate

Europe lies in the North Temperate Zone; it lies farther north than America, but owing to favorable location in the path of westerly winds it has a stimulating and productive climate.

2. Size and Varied Natural Resources

Europe has only about one quarter as much land per person as the United States has, but it has a wide expanse of good farm land. It is rich in some of the raw materials like coal and iron. It lacks others, such as copper, nickel, tin, gold, silver, and rubber. It has a *deficiency* of petroleum.

3. Many People Ready to Work

Europe has four times as many people as the United States, and they are used to hard work and ambitious to get a good living.

4. Inventors and Scientists Have Learned to Master Nature

Even more than the United States, Europe's history in the past 200 years shows that scientific ways of doing things have been thought out and used — in the making of machines and engines, and in manufacturing and selling things.

EUROPE'S COAST LINE, HARBORS, AND CENTRAL LOCATION PROVIDE MARVELOUS ADVANTAGES FOR TRADE

1. Europe's coast line: twelve of the twenty-four most important ports in the world are in Europe

Years ago much of the land of Europe sank so low that the ocean flowed over it and far into it in many places, forming seas, bays, and harbors. Notice on the map following page 336 the coast line of the Italian peninsula, the Balkan Peninsula, Turkey, and other land formations.

Many millions of years ago the British Isles were a part of the European continent. After a long time the ocean broke through and flowed over part of the land and formed the English Channel, the North Sea, the Baltic Sea, and the Gulf of Bothnia. Today for 1000 miles large ships can sail inland up through the North Sea around between the Danish and the Scandinavian peninsulas, and up the Baltic Sea.

Not only has Europe a long coast line, but it also has more deep, sheltered harbors than any other region in the world.

If a region is to become a center of world trade, it must have many well-protected harbors for its ships.

Studies of world trade have shown that of the twenty-four ports that handle the largest amount of business, twelve are in Europe. These ports which play an important part in world affairs are Liverpool, London, Bordeaux, Marseille, Hamburg, Antwerp, Havre, Genoa, Hull, Manchester, Bremen, and Glasgow.

2. No place in Europe is far from a sea

Get before you a map which has a scale, that is, a line the length of which represents a certain number of miles. Locate some city of central Europe, say Budapest or Vienna. Note that from Budapest one can reach the sea in three directions in less than 600 miles. Even Moscow,[1] which has so long been an inland city isolated from sea trade, is less than 600 miles by river from the Baltic Sea and little more than 700 miles from the Black Sea.

Now compare this situation with that of cities in Asia, South America, Africa, or the central United States. In the United States, for example, Chicago and St. Louis are about 1000 miles from the Atlantic and about 2000 miles from the Pacific. Points in the central part of Brazil are more than 1500 miles from either ocean. Asia is more than 3000 miles wide and 6000 miles long. There are indeed many millions of square miles within it which are difficult to reach from the sea even by river.

Study the map of Europe again. Note that almost every large city of Europe is on an important river. Find Budapest and Vienna on the Danube, Warsaw on the Vistula, and Cologne on the Rhine. Note that Brussels, Antwerp, Paris, Lyon, and others are all connected with the seacoast by a fine network of rivers and canals.

---

[1] The construction of an eighty-mile canal connecting Moscow with the upper part of the Volga River, which was completed in 1937, along with other current projects, will bring seagoing vessels from the Baltic Sea direct to Moscow.

3. Europe's central location gives her unequaled opportunities for trade

At one time western Europe was at the extreme edge of the known trading world. Today it lies in the center of the great trading world between the Eastern and the Western Hemisphere.

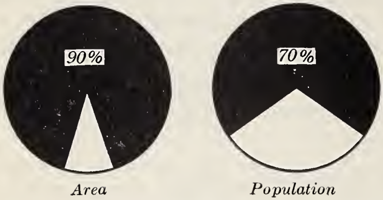


Fig. 158. These graphs show the per cents of area and population controlled by Europeans or the descendants of Europeans. See Fig. 261 for the map of the areas which they control

The map of the great ocean highways shows that Europe has advantages for trade unequaled by other regions. Turn back to the map of figure 26 and on it pick out the heaviest bands of sea trade. The heaviest band of all goes from Great Britain, northern France, and Germany to the United States. Notice the next heaviest bands. One runs from Great Britain, France, and Germany around Spain through the Mediterranean, the Suez Canal, the Red Sea, and the Indian Ocean, to the Far East. Another very important band goes from Great Britain and western Europe to South America. Two or three bands, running from the United States to South America and from western Europe around southern Africa, appear of about equal importance. We can see plainly that three of the four largest lines of trade in the world are carried on with western Europe.

Thus Europe has advantages in trade such as no other continent enjoys. Summed up, they are (1) a long coast line, (2) many deep and sheltered harbors easily reached from interior cities, and (3) a central location in the trading world, which she herself has helped to make.

EUROPE'S MANY ADVANTAGES GAVE HER CONTROL OVER MUCH OF THE EARTH

In the past 400 years Europe has become the most powerful region in the world. Its resources and its people, its machines and engines, and its swift transportation and electrical communication have led its people to explore and settle in every continent. Since 1600, Europeans have set up communities in North America and South America, in Asia, in Africa, and in Australia.

Let us sum up the examples you have now studied of how they did it: (1) People from every European country settled the United States. (2) Britons and Frenchmen settled Canada. (3) Dutch, Portuguese, Belgian, French, Italian, and British people settled large colonies in Africa. (4) The French took about a third of Indo-China, the British conquered most of India, and both countries introduced industrial ways of living into these new regions. (5) The British, French, and Germans took many ports, cities, and regions in China, built Western factories, stores, and banks, and developed modern trade (for this story see Chapter XXII). (6) Russians moved eastward from Europe and settled the territory across Asia. (7) In addition to settling in these large regions, Europeans of many nationalities have taken islands, ports, and other scattered bits of land over the entire earth.

In a later chapter you will learn that the Spaniards and Portuguese went into Central and South America after 1500. There they conquered the Indians and developed governments and ways of living much like those they had left.

Today Europeans or their descendants control 90 per cent of the area and 70 per cent of the people of the earth

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

Allen, Nellie B. Europe. Ginn and Company, Boston, 1928.

Carpenter, Frank G. Europe. American Book Company, New York, 1924.

Clark, Vinnie B. Europe. Silver, Burdett and Company, New York, 1925.

Huntington, Ellsworth, and Cushing, Sumner W. Modern Business Geography. World Book Company, Yonkers, New York, 1925. The best single reference on the "geography" of Europe. See Chapter XVIII, "The Geographical Conditions of Manufacture," and Chapter XXI, "What Europe Does for a Living."

CHAPTER XVI

THE INTERDEPENDENCE OF EUROPEAN COUNTRIES IN 1914

What were the conditions in European countries in the spring of 1914?

When Charlie Chaplin visited London in 1921, he said to H. G. Wells, the English author: "People are not laughing and careless here any more. It isn't the London of 1914 that I remember. The people are worried. Something hangs over them."

The Londoners of early 1914, whom Chaplin remembered, appeared to be fairly prosperous and rather carefree. They seemed sure of steady work and of increasing wages. English life was running smoothly, and there were time and money for sports, for the theater, and for other recreations.

The conditions which Chaplin saw in 1921 were very different. In 1921 thousands of unemployed people were walking the streets of England's cities looking in vain for work. The coal mines had closed. Workers were greatly worried by the fact that their wages bought fewer loaves of bread and less clothing than they did in 1914. English citizens were loaded down by the huge taxes that their government was demanding from them.

Why, you will ask, this startling change within the short period of only seven years?

Because Englishmen, like most of the other Europeans in 1914, were living a very *interdependent* kind of life, and by 1921 that life had been upset. In 1914 their work depended upon a great system of transportation, communication, and trade. These bound the countries of Europe closely together commercially, in much the same way as the various sections of the United States are bound together. If that interdependence should break down, their jobs and hence their very living would be endangered.

That is just what did happen — the system broke down and a startling change came to the people of Great Britain. It came also to the people of France, Germany, and other countries.

In order to understand this change we shall first need to learn how the vast network of trade, transportation, and communication knit together the millions of European people in 1914.

THE FIRST EXAMPLE OF EUROPEAN INTERDEPENDENCE: AN EFFICIENT SYSTEM OF TRANSPORTATION

1. A fine system of railways tied together all the countries of Europe

In the spring of 1914 one could board a fast express in Paris, France, and travel rapidly and in comfort through Europe to any other country. Travel was as easy in Europe at that time as it was in the United States. From Paris to Berlin? Oh, yes, in a day. From Berlin to Vienna? Little more than an overnight trip. From Vienna to St. Petersburg? A journey of a day and a half on one of the fast cross-continental express trains.

Could one go from western Europe to the Near East easily by land? Yes, indeed. There was a trunk railway that ran over the old route leading from Paris, Rome, Vienna, or Berlin to Constantinople. From there one could go southeast through the Holy Land or, with some gaps, to Cairo in Egypt, or to Bagdad and the Persian Gulf.

One could even ship goods by rail from western Europe almost to the very center of ancient Asia. Of course, there were fewer railways in Asia, schedules were slower, and travel was not so comfortable as in Europe; but there were at least some railway connections for freight and passengers. Thus in the spring of 1914 Europe had 250,000 miles of railway tracks — about the same number as the United States.

Many European people absolutely depended for work, for food, for comfort, even for their very lives, on these railroads which ran across the boundaries of the different countries. Great engines hauled long trains of cars carrying wheat from Russia and southeastern Europe to Germany and other manufacturing countries. Germany was sending millions of tons of coal, and iron, and steel products to all the countries of Europe. From Italy grapes, wine, olive oil, nuts, and manufactured goods sped northward to be sold in France. Germany, and Great Britain.

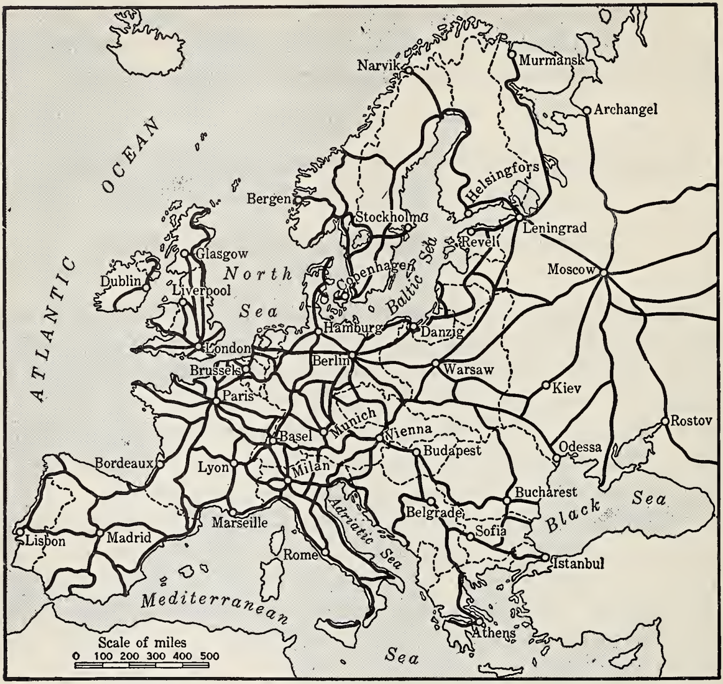

ATLANTIC
OCEAN
Narvik
Murmansk
Archangel
Bergen
Stockholm
Helsingfors
Leningrad
Revel
Glasgow
North Sea
Dublin
Liverpool
Copenhagen
Baltic Sea
Moscow
Hamburg
Danzig
London
Berlin
Brussels
Warsaw
Paris
Kiev
Munich
Vienna
Rostov
Basel
Budapest
Odessa
Bordeaux
Lyon
Milan
Bucharest
Black Sea
Belgrade
Marseille
Sofia
Lisbon
Madrid
Adriatic Sea
Rome
Istanbul
Mediterranean Sea
Athens
Scale of miles
0 100 200 300 400 500

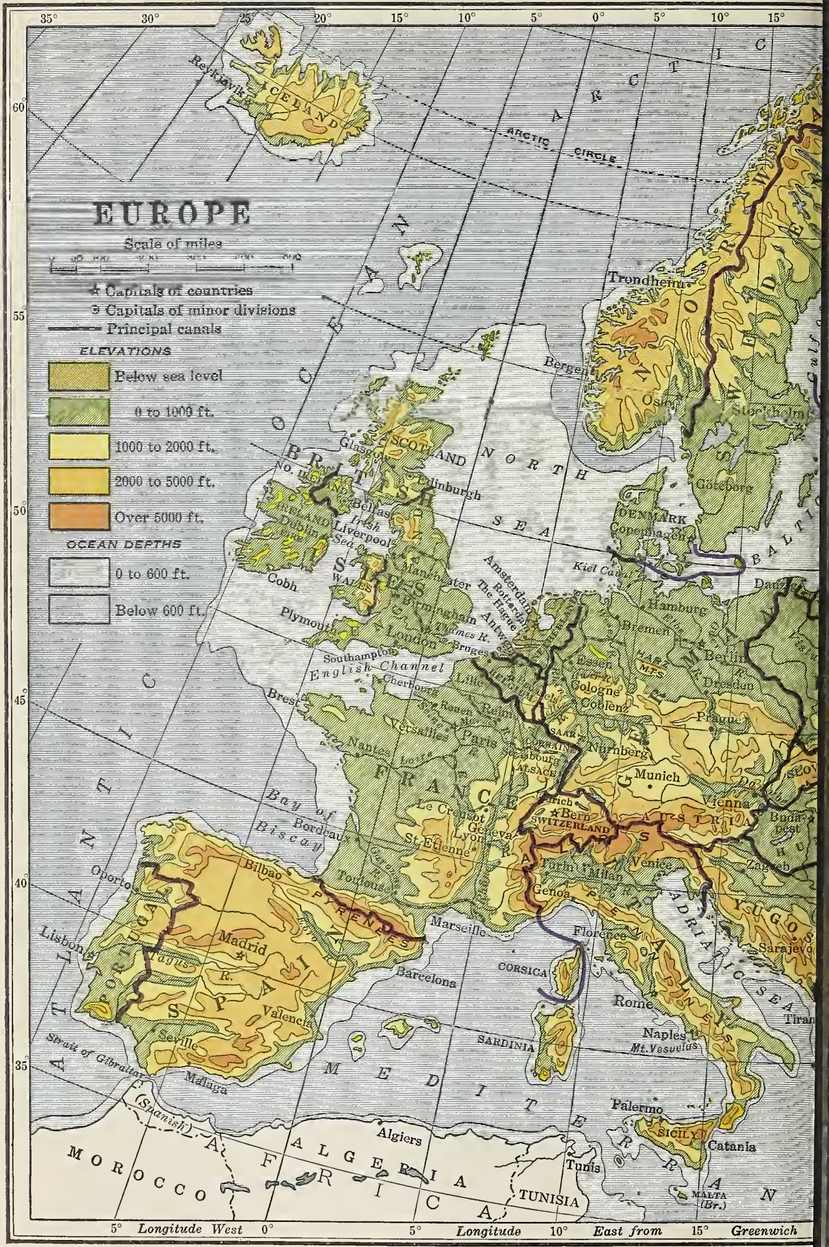
FIG. 159. This map shows the principal railways of Europe and the cities which they connect

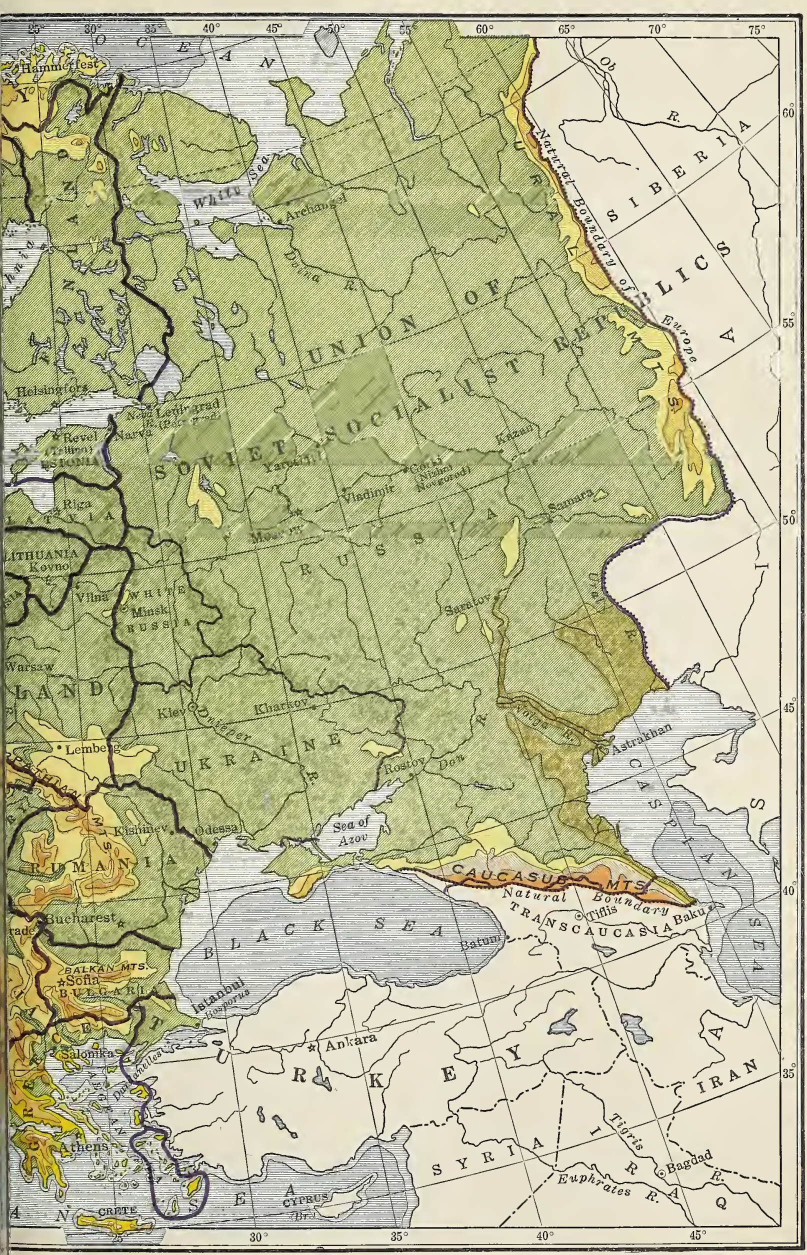
The most important thing for you to remember about these railroads is that *they were international.*

2. A fine system of waterways also tied together the countries of Europe

Look carefully at the map following page 336, and notice the great number of rivers and canals that were useful for shipping all over Europe. Many of them crossed international boundaries, so that Europe was tied together not only by railways but by waterways as well. In 1914 these waterways played a great part in the international life of the European nations.

We have already spoken of the advantages Europe enjoys because of its shape, its great harbors, and the number of rivers


EUROPE
Scale of miles
★ Capitals of countries
⊙ Capitals of minor divisions
Principal canals
ELEVATIONS
Below sea level
0 to 1000 ft.
1000 to 2000 ft.
2000 to 5000 ft.
Over 5000 ft.
OCEAN DEPTHS
0 to 600 ft.
Below 600 ft.
ARCTIC CIRCLE
ARCTIC
ICELAND
Reykjavik
ATLANTIC OCEAN
NORTH SEA
BRITISH ISLES
SCOTLAND
Glasgow
Edinburgh
No. IRELAND
Belfast
IRELAND
Dublin
Irish Sea
Liverpool
Manchester
WALES
Cobh
Plymouth
Birmingham
Thames R.
London
Southampton
English Channel
Cherbourg
NORWAY
Trondheim
Bergen
Oslo
SWEDEN
Stockholm
Göteborg
Gulf
DENMARK
Copenhagen
Kiel Canal
BALTIC
Danzig
Amsterdam
Rotterdam
The Hague
Antwerp
Bruges
Brussels
Lille
Hamburg
Bremen
Elbe
HARZ MTS.
Berlin
Essen
Cologne
Coblenz
Dresden
Prague
GERMANY
SAAR
LORRAINE
ALSACE
Strasbourg
Nürnberg
Munich
Vienna
Danube
AUSTRIA
Budapest
Zurich
Bern
SWITZERLAND
ALPS
Geneva
Brest
Rouen
Reims
Versailles
Paris
Nantes
Loire
FRANCE
Le Creusot
Lyon
St. Etienne
Bay of Biscay
Bordeaux
Toulouse
Marseille
PYRENEES
Bilbao
Oporto
PORTUGAL
Lisbon
Tagus R.
Madrid
SPAIN
Ebro
Barcelona
Valencia
Seville
Malaga
Strait of Gibraltar
(Spanish)
MOROCCO
ALGERIA
Algiers
AFRICA
TUNISIA
Tunis
MEDITERRANEAN
CORSICA
SARDINIA
Turin
Milan
Venice
Genoa
Florence
ITALY
APENNINES
Rome
Naples
Mt. Vesuvius
Palermo
SICILY
Catania
MALTA (Br.)
ADRIATIC SEA
Zagreb
YUGOSLAVIA
Sarajevo
Tirana
35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15°
60° 55° 50° 45° 40° 35°
5° Longitude West 0° 5° Longitude 10° East from 15° Greenwich



25°
30°
35°
40°
45°
50°
55°
60°
65°
70°
75°
O C E A N
Hammerfest
White Sea
Archangel
Dvina R.
Ob R.
S I B E R I A
U R A L M T S.
Natural Boundary of Europe
UNION OF SOVIET SOCIALIST REPUBLICS
Helsingfors
Revel (Tallinn)
ESTONIA
Narva
Leningrad (Petrograd)
Riga
LATVIA
LITHUANIA
Kovno
Vilna
Minsk
WHITE RUSSIA
Warsaw
LAND
Yaroslavl
Vladimir
Gorki (Nizhni Novgorod)
Kazan
Samara
Moscow
R U S S I A
Saratov
Ural R.
Kiev
Dnieper
Kharkov
U K R A I N E
Lemberg
Rostov
Don R.
Volga R.
Astrakhan
CASPIAN SEA
Kishinev
Odessa
RUMANIA
Sea of Azov
CAUCASUS MTS.
Natural Boundary
Tiflis
TRANSCAUCASIA
Baku
Batum
BLACK SEA
Bucharest
BALKAN MTS.
Sofia
BULGARIA
Istanbul
Bosporus
Salonika
Dardanelles
AEGEAN
Athens
CRETE
SEA
CYPRUS (Br.)
Ankara
T U R K E Y
IRAN
SYRIA
IRAQ
Tigris
Euphrates R.
Bagdad
60°
55°
50°
45°
40°
35°
30°
35°
40°
45°

that connect the interior to the seas. Many European countries are within such easy reach of the sea that they do not have to ship goods across another's borders.

In addition, some of these important navigable rivers, flowing through fairly level land for long distances, pass through several countries. On the map find the Danube, the Rhine, the Elbe, the Vistula, the Rhone, and the Moselle. Notice through which countries each river flows. How many countries does the great Danube join together? Which are they? Which countries are bound together by the Rhine? the Elbe? the Moselle? the Rhone? Notice also on the map the port cities which have grown up at the mouths of the largest rivers.

Water transportation had proved so much cheaper than land transportation that by 1914 every European country had spent millions of dollars for its improvement. Channels had been deepened. River banks had been strengthened. Docks had been built. Rivers had been connected by means of canals.

Of course, canals had been used in Europe for hundreds of years. But as manufacturing developed in the nineteenth century and better means of transportation were needed, the old canals were deepened and widened and new ones were dug.

So many canals had been constructed in France, for example, that it was possible to carry goods entirely by water from its northern to its southern boundaries, and from its eastern to its western boundaries.

The Seine, with its canals and branches, carried each year to Paris huge quantities of coal, cement, stone, brick, grain, foods, and wines. This system and others in various parts of France formed a cheap and efficient network of transportation for France. Some of these waterways were international; that is, the people of two or more countries used them.

Germany also had an excellent system of rivers and canals and was tied to other countries by means of it. The Rhine begins in the Alps in Switzerland, flows northward through Germany into the Netherlands, then out into the North Sea — a distance of 850 miles. Remember that in the valley of the Rhine, or near it, lie the principal coal fields and many of the iron mines of Germany and France. Up and down the stream every year a tremendous volume of freight was carried, some of which was French (though

France did not then touch the Rhine) and some German. In 1914 canals joined the Rhine to the neighboring rivers. Rivers and canals formed a continuous chain for shipping.

Germany has four other great river systems besides the Rhine. These are the Weser, the Elbe, the Oder, and the Vistula. Two of them cross into Germany from other countries, and all of them are linked by canals.

What we have said about waterways in France and Germany is true also of other countries of Europe. The whole continent was bound together in 1914 by a fine network of rivers and canals.

3. Europe had an international system of roadways

In ancient days the Romans built very good roads throughout much of Europe. The lands which became France, Spain, England, Switzerland, Yugoslavia, Rumania, and part of Germany and Austria-Hungary belonged to the Roman Empire. Communication between the capital at Rome and each of these distant territories was made possible by a system of stone roads. At that time there was a saying "All roads lead to Rome." Even in those far-off days all the countries of Europe which were parts of the great Roman Empire were linked together for transportation and communication.

After the fall of Rome, however, these good roads were not used much. The communities of Europe lived by themselves, and connections between them were neglected. In fact, even the cities which were growing up made little attempt either to keep the old roads in good condition for travel or to build new ones. Why? Because in those days there was always the danger of attack by an enemy, and the people of the cities felt safer if roads leading into them were not too smooth. The roads became so bad that travel on them was almost impossible. The little communication that was carried on between countries made use of the sea or the rivers. That is one important reason why many of the European cities grew up on rivers.

When the Industrial Revolution began, and trade became much more active, the people of every country felt the need for connecting towns and cities by better highways. In some places the old Roman roads were rebuilt. Many new ones were constructed, especially near the manufacturing cities, and governments demanded taxes for road-building and repairing. In the twentieth century automobiles and motor trucks came into everyday use and roads were greatly improved.

In 1914 most of the countries of western Europe had hard, rolled highways. One could drive an automobile on fine macadam or cement roads throughout Great Britain, France, Switzerland, Germany, Belgium, the Netherlands, Austria, and parts of other European countries. Of course the traveler did not meet nearly so many automobiles as on the highways of the United States; but the use of them was increasing. Near the largest cities light motor trucks were rapidly taking the place of horse-drawn or ox-drawn wagons.

Like the railways and the waterways, the roads of Europe cut across national boundaries and tied the countries together. Frenchmen were trading across them with Germans, Belgians, Austrians, Spaniards, and Russians, just as the people from all these countries were trading with those of every other country. By 1914 all the means of transportation and communication were working smoothly together. This brought about a constant flow of people, news, and goods from one corner of Europe to the other.

The Second Example of Interdependence: The Distribution of Coal and Other Fuels

Manufacturing, transportation, and communication in Europe, as in the United States, depended absolutely on mechanical power, that is, on power made by steam engines, gas engines, or electric generators. This meant that the manufacturing people of each country depended on a constant supply of coal, oil, or water power. The most important of these was coal; but the use of oil and of water power was gradually increasing.

As we have seen in our study of each of the industrial countries, Europe had vast stores of coal. Coal was used to supply the driving power to run trains, canal boats, river boats, and steamships. Thus coal kept food, raw materials, and manufactured goods moving within each manufacturing country and from one country to another.

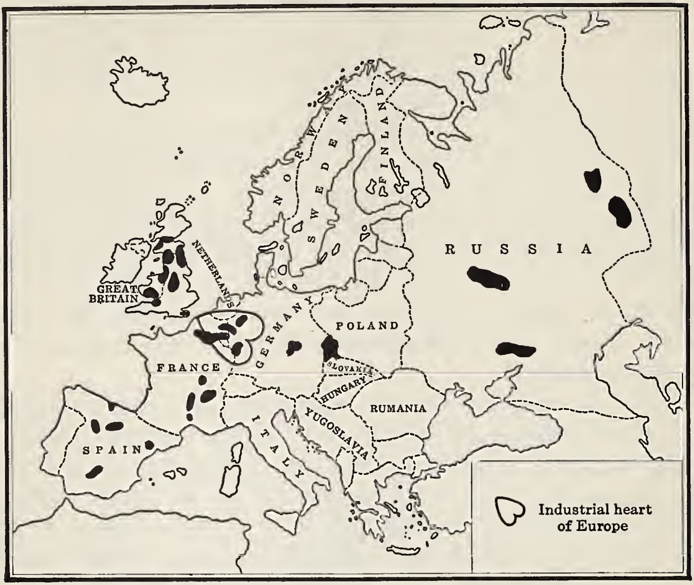
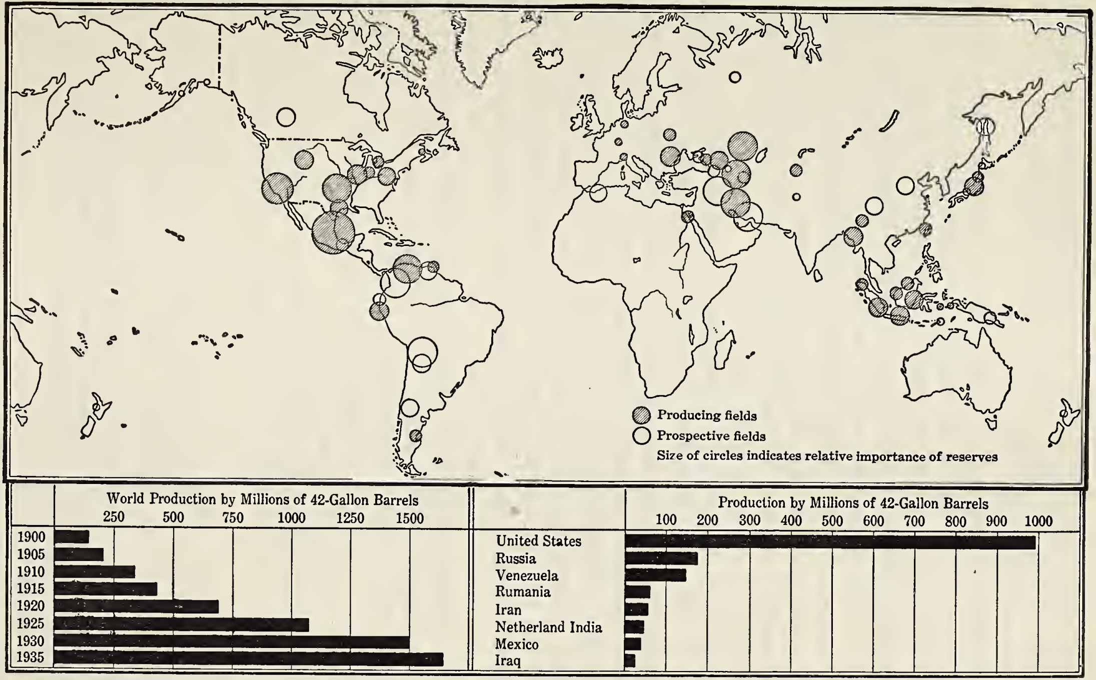

NORWAY
SWEDEN
FINLAND
RUSSIA
GREAT BRITAIN
NETHERLANDS
GERMANY
POLAND
FRANCE
SLOVAKIA
HUNGARY
RUMANIA
YUGOSLAVIA
SPAIN
ITALY
Industrial heart of Europe

FIG. 160. The chief coal deposits of Europe. Compare this map with that of figure 162

Without coal the roaring steel mills of the Ruhr valley, the Lorraine district, or the Birmingham-Manchester region could not run. Without coal Germany's industrial workers would have been unemployed. Without coal in 1914 raw cotton could not have been carried in such great quantities from India or the United States to England, and English spinners and weavers would have been out of work. Without coal the trains of the busy transcontinental railroads would have stopped running, and the city people of Europe would have suffered in winter and died for lack of food. Truly coal was *the all-powerful king of industrial Europe* in 1914.

Although there were great quantities of coal on the Continent, some of the countries did not have enough of it. England had enough and some to spare. Germany had great coal mines on both her western and southeastern boundaries. *But France and some of the smaller countries lacked coal* and depended on the others for much of their supply. To cut off that supply would have



▨ Producing fields
○ Prospective fields
Size of circles indicates relative importance of reserves
World Production by Millions of 42-Gallon Barrels
250
500
750
1000
1250
1500
1900
1905
1910
1915
1920
1925
1930
1935
Production by Millions of 42-Gallon Barrels
100
200
300
400
500
600
700
800
900
1000
United States
Russia
Venezuela
Rumania
Iran
Netherland India
Mexico
Iraq

FIG. 161. The oil resources of the world

meant great suffering for the people of those countries, unless the far-off United States or other regions could send it to them.

So much for coal. What about oil?

In *Our Country and Our People* we learned that oil is another very important fuel for driving engines. Recall the story of the astonishing increase in the world's production of oil after 1900. European automobiles, motor trucks, even trains, steamships, and factory machines, were run by the power of oil-burning engines. The British navy and many British merchant vessels were burning oil in place of coal, and the ships of other nations were following England's example. All the industrial countries of Europe were beginning to use large quantities of oil.

The map of figure 161 shows that in western Europe almost no oil is found. In 1914, therefore, the industrial countries of western Europe that were using oil to run automobiles and trucks, trains, factories, and ships, depended on other parts of the world for most of their supply of oil. Can you tell from figure 161 which countries probably supplied western Europe with oil?

Next to oil in importance as a source of power is moving water. We read that in the United States hydroelectric power stations were being built where large rivers could be dammed. There electric power was being made, and from powerful generators electricity was being sent over miles and miles of copper wire. This was providing the light for cities, towns, and villages, and the power to run engines in factories hundreds of miles away and even to drive railroad trains.

The same conditions were to be found in a few parts of Europe in 1914, where Switzerland and Germany led the way in generating electric power. In the Alps, the Vosges, and other mountain regions where swift streams tumbled down hillsides, electric power stations were set up. The water was held back by dams and then sent through great water wheels. Up and down the Rhine, the Danube, and some other European rivers a traveler could see new electric power stations. The power was transmitted across the boundaries of different countries, so that electric power was *international* too.

The Third Example of Europe's Interdependence: The Distribution of Iron and Other Minerals

We have learned that in Europe, as in the United States, the manufacturing of iron and steel also is an important key industry. Without steel there would be no factories, engines, or machines. Without steel there would be no modern railways. Without steel it would be very difficult to span wide rivers with bridges. Without it the modern ocean vessels, which carry so much trade, would disappear. Therefore iron ore and other minerals which go into the making of steel are the necessary treasures of an industrial nation.

But iron, like coal, in 1914 was not found in all the industrial countries of Europe. The best deposits of iron were in a few places — near the boundary between France and Germany, in Spain, and in Sweden. Great Britain had very little iron and depended on the countries we have named for most of her supply. Both France and Germany had large deposits, but Germany had more than France. You remember that in 1871 she had taken Lorraine from France, and with it gained great deposits of iron.

Furthermore, the other minerals needed in making steel — nickel, vanadium, manganese, etc. — were not possessed in large quantities by any industrial country of Europe. They had to be brought from Asia and South America.

So, for iron and the other materials of which steel is made, some of the European countries were dependent upon others and, indeed, upon other continents.

The Fourth Example: Industrial Countries Depended upon Agricultural Countries for Food

We have seen how England and Germany had begun to buy much of their food from other countries. In both countries the city dwellers who had left their farms began to depend on the farms of neighboring and far-off countries for their daily meals. The English were much more dependent upon others for food than were the Germans. About 80 per cent of the English people were living in towns or cities in 1914. The other 20 per cent could

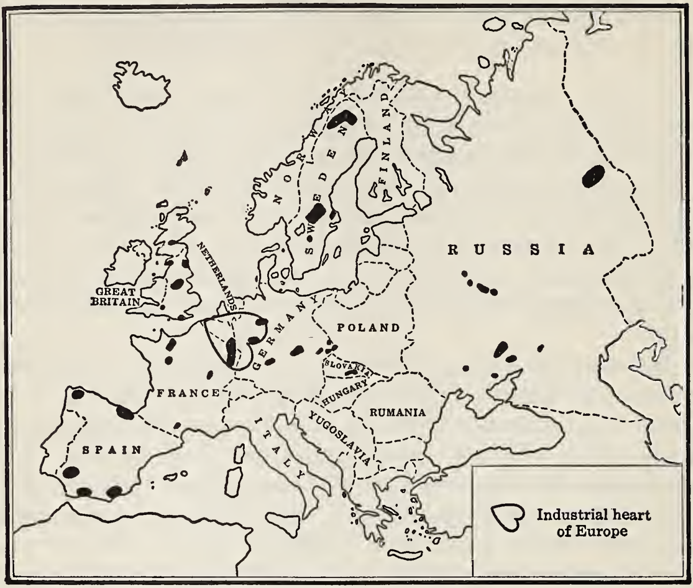

GREAT BRITAIN
NETHERLANDS
NORWAY
SWEDEN
FINLAND
RUSSIA
GERMANY
POLAND
SLOVAKIA
HUNGARY
RUMANIA
YUGOSLAVIA
FRANCE
SPAIN
ITALY
Industrial heart of Europe

FIG. 162. The chief iron deposits of Europe. Iron and coal are found close together in the region outlined by the heart (see figure 160). Does this help to explain why this part of Europe has become the industrial heart of the continent?

not possibly raise enough food to feed such a vast number of people. So wheat was brought to England from Canada, Australia, Argentina, and the United States. Milk, butter, fish, and vegetables arrived in England every day from France, Denmark, Sweden, and other farming nations.

Fifteen per cent of Germany's food in 1914 came from beyond her borders — from Russia, Rumania, Scandinavia, and other regions. In France nearly half the people had remained on their farms; but France too was becoming an industrial nation and was beginning to buy a little food from other countries.

So in 1914 each industrial country depended in some measure on other countries for food.

Summary of Conditions in the Spring of 1914

Thus we see that by 1914 the countries of western Europe had become very dependent upon one another for all sorts of necessities. One part had to work co-operatively or smoothly with every other part, else the comfort of all Europe's people was doomed. In addition the European countries depended upon far-off parts of the world for many things. In Europe the cities depended upon the farms for food, and the farms depended upon the cities for manufactured goods. Each region depended upon every other region; each industry, upon many other industries. Even inside each factory the work of one department of the business depended upon the work of every other department. Does this dependence of European countries upon one another remind you of the dependence of one section of the United States upon other sections?

Villages, towns, cities, countries — all depended upon one another. No one country could live to itself, any more than one person could live to himself. All were interdependent.

No one of the countries of western and central Europe was very large. Most of them were not much larger than one of our states. No one of them had enough coal, iron, and other minerals to supply its own needs. Only France, of the three great European manufacturing countries, raised large enough crops to feed its own people.

These are but a few brief illustrations of many that could be given — examples of the way in which European nations, in the spring of 1914, were closely connected by bands of trade.

Germany Became the Very Center of This Vast European Land Trade

In 1914 the center of this remarkable system of trade in Europe was Germany. She was well located on the sea and was situated in the very heart of other European countries. Her railroads, rivers, canals, and roads led directly and quickly to the other countries that lay on the north, the south, the east, and the west.

From the countries to the southeast and east — Austria-Hungary and Russia — Germany was buying wheat and other foods and raw materials. To Russia in exchange she was sending locomotives, cotton goods, machinery, and fertilizers — to mention only a few of many exports. To the north lay Denmark, which could be reached by land, and Norway and Sweden, which could be reached quickly and easily by sea. On the west were France, Belgium, and the Netherlands, all within easy reach for land trade. On the south lay Switzerland and Italy, and Rumania, Serbia, and the other countries in the Balkan Peninsula. Germany had a nearly perfect system of land trading connections in 1914.

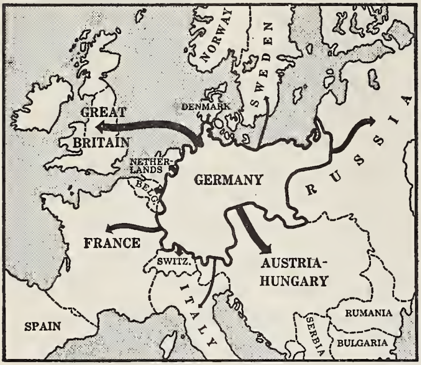


Fig. 163. The arrows indicate the European countries with which Germany was trading in 1914, and the width of the arrows indicates the importance of the trade carried on

Ideas Also Spread across National Boundaries

There is one more important thing which the people of Europe exchanged freely and which helped to make them dependent upon one another — ideas. Ideas, like trade, were not confined to national boundaries. As means of travel and communication increased, the knowledge of new and better ways of living spread more widely and more quickly.

Early in the 1700's the ideas for making new machines and engines crossed the boundaries of all the countries. Englishmen, Frenchmen, Italians — all were working on the same ideas and were using the knowledge of men of every country who had gone before them. Scientists for a long time had recognized that science was international rather than national. German, French, English, Russian, and Italian scientists were eager to share their ideas with their fellow workers in neighboring countries.

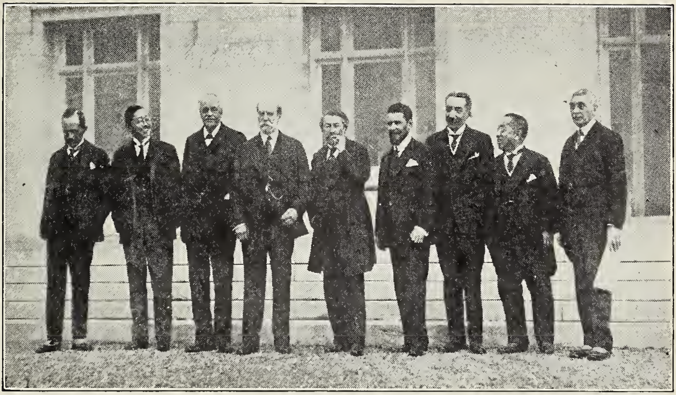


FIG. 164. In this group of famous statesmen is one citizen from each of the following countries: Japan, Belgium, England, the Netherlands, China, the United States, France, Italy, and Portugal. Could you tell from which countries they have come by the way they are dressed?

In 1914, as today, ideas did not take years or even months to cross national boundaries. They crossed them "overnight." A new invention, perhaps in Germany, was described in the newspapers of London, Paris, New York, Tokyo, Bombay, and Cape Town the next morning. Who knows how many inventors were urged on by this news to go to work that day on another invention which might be better?

Not only sciences but customs, art, and literature passed from country to country regardless of the nationality of the peoples.

Figure 164 illustrates the way in which ideas of dress spread. Note that while no two men shown in the illustration are natives of the same country (indeed, three continents are represented), all wear the same kind of clothing. Photographs of life in the Orient or in modern Turkey in 1914 would have shown that even in those distant countries European ideas of dress were being rapidly taken over and European customs were spreading round the world.

With the improvements in transportation and communication between countries travel increased. Books, newspapers, and magazines printed in one country were sold and read in another. Students from one country went to study in the universities and technical schools of others. Professors of colleges in one country "exchanged" positions from time to time with professors in other countries. In these and many other ways ideas spread across national boundaries.

The writings of the novelists and poets of one country were widely read and discussed in other countries. The paintings and sculpture of the artists of one people were often exhibited in other countries and bought by people living there.

In every branch of life the peoples of the world were coming closer together and depending more and more upon one another.

The Carefree Life of Most Europeans in the Spring of 1914

People of every nation of Europe were working hard and prospering in the spring of 1914. Most of them had no idea that a terrible danger was shadowing their lives. A few, but only a few, of the political leaders of each country saw plainly the peril which was drawing nearer and nearer. The mass of the people, however, believed that they were living in a world of nations which had forgotten war.

When housewives bought food in the shops of Berlin or London, they did not stop to think of the factors which made it possible for that food to be placed on the shop shelves for them to buy. Actually that food would not have been there if the interdependent system of agriculture, manufacturing, transportation, and trade had not been running smoothly.

Certainly they had little notion that within four years millions of them — their neighbors, friends, families, and relatives — would be dead. They little thought that the farms of their country would be laid waste, that they themselves would be penniless if not in debt, and that their government too would be sunk deep in debt.

Serious Dangers Hung over the People of Europe[1]

But trouble was brewing in Europe! A few thoughtful people saw the danger that was coming. They realized how much the countries were coming to depend upon one another. They saw that if anything upset the world-wide system of producing and exchanging goods the whole world might suffer.

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[1] This discussion of the movements and influences that led to the World War is based upon authoritative accounts of eminent historical scholars. We regard Sidney B. Fay's *The Origins of the World War* (The Macmillan Company, New York, 1928) as the best standard work in English.

Furthermore, they saw four real dangers and tried to arouse the people of Europe to avoid them.

The first danger: The rivalry for world trade and empire

The first of these dangers — the rivalry of the chief countries for trade and foreign lands — we have already discussed in preceding chapters. We have seen how Great Britain, France, and Germany had each taken colonies in Asia and Africa.

The leaders of each country were suspicious of the leaders of the others. The statesmen of each country feared that the others might become powerful enough to threaten the growth of their own country. Since they were all on the lookout, each country was ready to take sides against any rival who might become too powerful.

We must note carefully, however, that the *mass of the people* of Europe did not feel this rivalry of the nations for trade or territory. They went about their daily tasks as they had always done, leaving such schemes as empire-building to officials of the government and the big traders. The people as a whole in all the rival nations neither knew nor cared deeply about what these statesmen were doing.

The second danger: The growing spirit of fear and suspicion among the European countries

Without realizing it the people of the various European countries had been changing their ways of thinking about one another. For the first time in the history of Europe the *farmers and mechanics as well as wealthy people had been learning to read and write.* Inventors had perfected printing presses which turned out huge numbers of newspapers every day. In almost every city and large town of the leading countries people could now buy a daily newspaper for a few cents.

By 1914 newspapers and magazines were read widely, and many important ideas were being circulated among the people. This had a deep effect upon their thinking. Many of them began to form opinions on subjects about which they had never before thought and to gain new ideas about their neighbors.

Along with the new way of printing came public use of the telegraph (1844) and the telephone (1876). With these inventions it was possible to flash news quickly to every corner of Europe from every part of the world.

More rapid means of transportation — steamboats, railroads, etc. — helped the peoples of the entire world to trade with one another. They also spread the ideas of one people among other peoples and made it possible for the peoples of the world to keep informed about one another.

The new ways of communication — printing, telegraphing, and telephoning — were being used by the people of all the European countries. Communication and transportation had made the people of Europe acquainted with one another.

One would think that as people became better acquainted they would have come to understand one another better and that they would have been able to live together more happily and kindly. No doubt, to some extent, they did live together more peacefully. However, rapid communication also helped to increase fear and suspicion among the peoples of Europe. Often the newspapers and other publications of one European country printed articles that stirred up suspicion against the people of another country. Sometimes, it must be said, untruths were printed about other countries.

Printed matter was actually used to arouse hatred. Sometimes politicians of Great Britain, France, Russia, Germany, or some other country wanted their people to think that they were in danger of being attacked by a certain other powerful neighboring country. They made statements for their newspapers in which they hinted that the people of a rival country were scheming to destroy their homes and seize their property. Many readers began to fear for their lives, and slowly some began to imagine that every person of the rival country or countries was a personal enemy.

At the same time the newspapers made these people believe that their own country was innocent, and that their own government would be forced to defend itself against its enemies. They began to love their own country more and more and to feel that their country was better than any other. Finally some of them began to think that their country was chosen to be the leader of the world. This was the attitude of many British people toward the British Empire, and we have clear proof that it was the attitude of many Germans toward the German Empire.

The German emperor once remarked:

> Nothing must go on anywhere in the world in which Germany does not play a part. . . . We are the superior race in the fields of science and of art; we are the best colonists, the best sailors, the best merchants.[1]

The leaders of Germany used the newspapers, the magazines, and the schools to convince the German people that they were born to rule other European peoples. Thus a war spirit was gradually developed.

In France, in England, and in Russia the same kind of spirit was growing. In France many people were beginning to feel that they were "Frenchmen" and that because they were Frenchmen they were quite different from Germans, indeed, enemies of Germans. When the English people could read at the breakfast table that Germany or Russia was threatening the British Empire, they became excited about defending themselves. Suppose these same people had read German or Russian newspapers, what would they have thought then?

Many of the Russian leaders too began to feel that it was their right to have a seaport on the Mediterranean, and that if necessary they should fight to get it.

Thus, in spite of the fact that the European people were living in much the same ways, thinking much alike, and doing much the same kinds of work, each came to believe that the people of countries other than his own were very different. They began to be suspicious of those people and even to fear and to hate them.

The third danger: The building of great armies and navies

From 1870 to 1914 all the great nations of Europe were building up huge armies and powerful navies, largely in rivalry of each other.

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[1] Albert E. McKinley (Compiler), *Collected Materials for the Study of the War*, p. 27. McKinley Publishing Company, Philadelphia, 1918.

Amount Spent for Navies in 1878 and in 1914		
	1878	1914
Great Britain	$53,000,000	$244,000,000
Germany . .	14,000,000	117,000,000
Italy	8,000,000	44,000,000

In the 1870's the armies of Great Britain, France, Germany, and the other leading countries of Europe were fairly small. Germany then had the largest army, for Prussia had long been a nation of military men; but even Germany had only 400,000 soldiers, and Great Britain and France each had about 200,000 men in the army.

What a change had occurred by 1914! Russia, Germany, France, and Austria each had about 4,000,000 able-bodied men trained for warfare.

Every country was so busy preparing for war at that time that Europe was referred to as "an armed camp." From railroad trains in the spring of 1914 a traveler could see squadrons of cavalry riding, soldiers marching, young boys being trained to march and to handle guns, and artillerymen practicing long-range shooting. It was evident indeed that the governments of the leading countries were expecting to need troops.

Navies as well as armies were growing. Shipyards in the harbors of Great Britain, France, Germany, and Russia — and even of the smaller countries — were humming with activity. They were busy building great steel-armored battleships, cruisers, submarines. Each of the leading governments was spending more and more money each year on its navy. The cost was enormous.

The table above shows very clearly how three nations rivaled one another in building navies. Great Britain spent nearly five times as much on its navy in 1914 as it did in 1878, Germany spent about eight times as much, and Italy nearly six times as much. The other countries — France, Russia, and Austria-Hungary — increased their navies very rapidly also, although they did not spend such huge sums.

The fourth danger: The secret agreements which European rulers made

In 1871, immediately after the war between France and Germany, the statesmen of the leading countries of Europe began to prepare for another war.

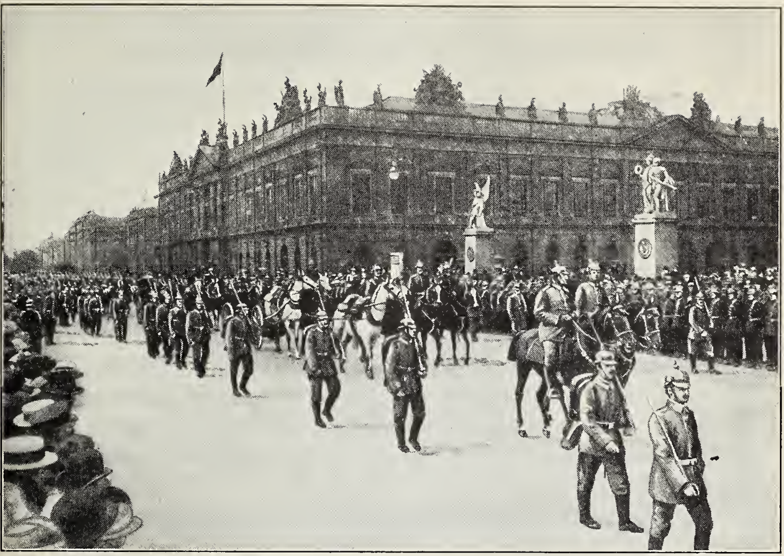

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FIG. 165. By 1914 many countries had large armies. Regiments of soldiers were often to be seen marching through the cities of Europe

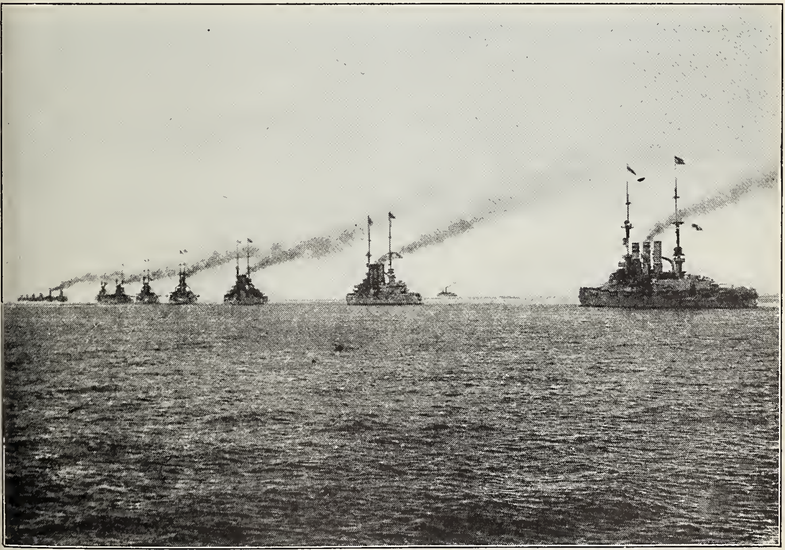

FIG. 166. A part of the British fleet in 1914. Other countries in Europe — France, Germany, Russia, and Italy — also had powerful fleets, although none so large as that of Great Britain

Two hundred years before that time a French king had taken Alsace from Austria. In 1871 France had lost to Germany the whole of Alsace and part of Lorraine, with their valuable coal and iron deposits. Frenchmen never forgot the loss of this territory; in fact, they resented deeply its seizure by Germany.

The German emperor and the officials of the government knew that France had not forgotten. To protect themselves in a possible war with France, they decided to establish friendly relations with other nations. They made a secret agreement with the emperor of Austria-Hungary and the Czar of Russia, by which they would all help one another in case one of them were "attacked" by another nation. This agreement, however, was not known to the *people* of Germany, of Russia, or of Austria-Hungary for many years.

The French and British governments also had secret agreements with each other and with other countries. Statesmen of these countries agreed to help one another should trouble arise.

Some time later Russia withdrew from her agreement with Germany and made one with France and England. This alliance between England, France, and Russia was called the *Triple Entente.*

Germany, in the meantime, had made a secret agreement with Austria-Hungary and Italy, forming what was called the *Triple Alliance.*

By 1914 the six greatest powers of Europe were lined up, as follows, three against three:

The Triple Alliance		The Triple Entente
Germany		France
Austria-Hungary	*against*	Great Britain
Italy		Russia

The smaller nations of Europe were included in various treaties, but the six important nations — three against three — were the chief opposing powers of the approaching war.

These secret alliances among countries were therefore a very grave danger to the safety of Europeans. They divided the continent of Europe into two opposing armed camps, whose leaders feared and suspected one another.

THESE, THEN, WERE THE CONDITIONS OF EUROPE IN THE SPRING OF 1914

More than 400,000,000 European people were scattered through twenty-odd countries. Three fourths of these people lived in six leading countries — Great Britain, France, Germany, Russia, Austria-Hungary, and Italy. The first three of these countries had taken up machine manufacturing, and had become industrial nations. The other three, although they had not gone so far toward industrializing, had built many factories, railroads, and telegraphs, and were beginning to use machines for manufacturing and for agriculture.

Although these countries were ruled by separate governments, they were bound together by transportation, communication, and trade. Some of the leading factories, railways, and coal and iron mines in one country were owned by citizens of several different countries. Governments were national; but the ties of trade, of transportation, and of manufacturing were international.

But rivalries in trade and empire-building had caused governments to suspect and fear one another. Finally, every nation was jealous of every other nation. After 1900 the feeling became so intense between the diplomats of the various countries that almost any incident could have caused the countries to go to war.

On a summer day of 1914 (June 28) that incident occurred. The Austrian archduke, Franz Ferdinand, heir to the Austro-Hungarian throne, and his wife were shot to death by persons believed to be of Serbian nationality. The event took place at Sarajevo, in Bosnia, then a province of the Austro-Hungarian Empire.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

For references consult the list of books at the close of Chapter XV.

CHAPTER XVII

HOW THE WORLD WAR CHANGED EUROPEAN COUNTRIES

GERMANY DECLARES WAR ON RUSSIA; FRANCE MOBILIZES; ENGLAND MAY DECIDE TODAY TO SUPPORT HER ALLIES; ITALY TO REMAIN NEUTRAL; MAY DESERT TRIPLE ALLIANCE[1]

On the morning of August 2, 1914, the Western world awoke and turned as usual to its morning newspaper. There across the front page in great headlines was the terrifying news that the nations of Germany and Russia were at one another's throats. By August 6 France, Great Britain, and Belgium had entered the war.

Throughout Russia 1,000,000 men were mobilizing, that is, preparing for active service in the army. Serbia and the other Balkan countries were full of marching regiments. In Germany and in Austria-Hungary, her ally, the governments had taken over full control of trains and every other kind of conveyance which could help to move 1,000,000 soldiers to the French frontier on the west and the Russian on the east. In France clerks in stores, merchants, mechanics in factories, young men in universities and colleges, farmers, all dropped their work to don uniforms, shoulder guns, and start for the north or east of France.

Nearly the entire population of young, able-bodied men was plunged into war at the command of the military leaders of Europe. Within a week cities, villages, and towns of Europe were stripped of most of their male population. The strongest and the best men of every country had gone to join one or another of the armies massing along more than 1000 miles of frontier.

On August 2 a German army gathered with amazing suddenness on the western frontier to strike the first blow. On August 4 it marched into Belgium. The little Belgian army, hastily called into action, was brushed aside by the powerful German divisions. Belgium was absolutely helpless before the avalanche of German machine guns, massive artillery, and swift cavalry. On swept the gray-clad German army through Belgium and across the French frontier. North of Paris the army of France rushed to meet and hold back the German advance. For a few days it looked to the outside world as though Germany's success of 1871 was to be repeated, and that Paris must surely be taken and the war ended as quickly as it had begun.

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[1] *New York Sun*, August 2, 1914.

France was desperate. Every vehicle — automobile, motor truck, horse-drawn wagon, freight and passenger train — carried reserve soldiers into the path of the German army. In the emergency England sent thousands of troops across the English Channel to help the French.

The English troops and French reserves arrived just in time. The Germans were halted less than 40 miles from Paris. Then the armies dug themselves into a long line of trenches extending across France from the English Channel to the Swiss and Italian borders.

In the meantime on the eastern frontier the Russian troops, numbering millions, had marched part way across Poland and had invaded Germany and Austria. To meet the advance of this Russian army millions of German and Austrian soldiers were massed together. After the first rapid movement back and forth as sharp battles took place, these huge eastern armies likewise dug themselves into another 1000-mile line of trenches, dugouts, and forts.

On the sea England was proving that she was still mistress. She threw a tight blockade around the ports of her enemies. Her tremendous navy drove almost every German battleship from the high seas. German merchant vessels which traveled in and out of harbors on the North Sea were pounced upon and captured by British naval vessels. The German Baltic fleet was bottled up. The merchant vessels which were captured were made to serve England, France, and their allies.

Food and materials from every distant land across the seas were kept out of Germany. Only from Sweden and Norway could Germany still get food and raw materials. On land she and her allies were surrounded by enemies. They were compelled to depend upon their own farms. They also had to make their own guns, ammunition, and other war materials. This last was not so serious a blow, however, for Germany had huge amounts of coal and iron in her mines. Besides, early in the war her armies had seized much of the French iron district near Lorraine. German factories were prepared to keep running through a long struggle.

Great Britain and France also were well prepared to make materials of war. Great Britain had coal, a world empire, and a vast merchant fleet. France had iron, some coal, and enough farms to feed her people. Furthermore, with the German power checked on the seas, Great Britain and her allies were able to buy food from America, Australia, Asia, and Africa. This saved the soldiers and other people of the Allied powers from starvation.

How the War Upset the Life of Europe

A densely massed line of troops was fighting on much of the border surrounding Germany and Austria-Hungary. Thus these two countries were cut off from every means of transportation which formerly had crossed their borders freely.

You remember that Germany had been the land center of European trade. Millions of tons of goods had flowed back and forth, in and out of Germany. You can imagine how complete and terrifying was the change that had occurred as trains, river boats, wagons, or motor vehicles, with their great stores of food and goods, were all strictly barred from crossing.

Within the warring countries the life of the mass of the people had changed entirely. Gone were husbands, fathers, and brothers. Occupations had changed. Machine shops were made to produce guns, ammunition, caterpillar tractors, tanks, or machines for turning out engines of war. Factories which had been engaged in manufacturing luxuries began to make only necessities or else ceased to run. Chemical laboratories, which had been making things to enrich the soil or to improve manufacturing, experimented with destructive gases, poisons, and explosives. People who were not actually fighting were busy at home carrying on the war by helping in every kind of war industry.

The governments of Europe made use of every person and every thing that could help to feed, clothe, and arm the fighters.

Women and children were put to work in the ammunition factories, in the textile mills, and on the farms of every country. Women replaced the men as workers in industry and transportation.

Passenger travel on trains or on steamboats almost ceased. In the towns and villages almost every form of amusement disappeared. The thoughts of the people were of war, war, war!

When the fighting started in August, 1914, few people in the world had any idea that it would develop into a long struggle. Still less did they imagine that most of the countries of the world would become involved. Actually it dragged on for four years and three months — from August, 1914, to November 11, 1918.

At the beginning, you remember, Germany and Austria-Hungary were fighting against Russia, France, and Great Britain. Italy withdrew from the Triple Alliance (p. 354) at the outset, and shortly afterward she joined the Allies. Turkey sided with Germany and Austria-Hungary. One by one the other important countries of Europe entered the war against Germany, Austria-Hungary, and Turkey. Then the smaller nations entered. Even far-off Japan and China became involved. It was truly a World War; for, before it ended, people from every continent were fighting on one side or the other.

In Chapter XIX you will read about the great revolution which swept over Russia in March, 1917, and how events in that year caused the Russian soldiers to withdraw from the war. This action had one important result: it enabled Germany and Austria-Hungary to mass most of their troops on the western front against France and England and their allies.

The United States Enters the War

When the war began, the United States, following President Woodrow Wilson's proclamation, attempted to keep strictly neutral. This was very difficult to do. First, many Americans and people living in America had relatives in the warring countries. As you have already learned, there were millions of Germans, Austrians, Italians, Russians, and other Europeans in America. Naturally many of them took sides with their native lands.

There was another reason why it was difficult to stay out of the war. Citizens of the United States continued to trade with

England and France, but were prevented by the British blockade from selling food and supplies to Germany. This was bound to cause trouble sooner or later. Germany strongly objected to America's trading with her enemies and not with her. She tried to defeat Great Britain's blockade by sinking merchant ships as well as naval vessels with her submarines. The sinking of merchant vessels without warning had been forbidden under international law, and the sinking of American merchant vessels caused intense feeling in the United States against Germany.

In May, 1915, a German submarine sank a British passenger steamship, the *Lusitania,* and many American citizens were among those drowned. This event, followed by others, increasingly turned the feeling of Americans against Germany.

In the winter of 1917, about the time that German officials were trying to stir up trouble between the United States and Mexico, the submarine war, which had previously been stopped, was renewed. Finally, on April 6, 1917, the United States declared war against Germany.

The United States had not been engaged in a great war since the War Between the States in 1861–1865. Congress immediately passed laws making all able-bodied men between the ages of 21 and 31 (later the age limits were extended to include all men between 18 and 45) liable to be drafted into the army or navy. Nearly 2,000,000 soldiers were trained and sent to Europe. More than that number were trained and held here in reserve.

Billions of dollars were raised by Liberty Loans. It was estimated that there were 4,500,000 subscribers to the first Liberty Loan and more than 21,000,000 to the fourth loan. Huge quantities of food and munitions were transported to Europe to help the countries which the United States now considered her allies. The whole country left its peacetime occupations and plunged into the war.

Through Four Years of War All the Principal Contestants Became Exhausted

Month after month, year after year, as the war dragged on, the resources of the fighting nations were slowly exhausted. Day after day, for more than four years, millions of dollars' worth of steel and other expensive materials were being blown to bits. Huge amounts of coal were being used to propel trains and to run factories so that the war might go on. Billions of dollars' worth of rich farm lands and of property in towns and cities were raked by shells, torn by the big guns, and pitted with air bombs. Buildings that had stood since the Middle Ages were shattered.

Locomotives, motor trucks, engines, and machines were breaking down constantly, for mechanics could not be spared from the business of war to keep them in repair. As fresh supplies of people were constantly needed on the battle fronts, men left the munition factories, mines, mills, and farms to fill this demand. Food became more and more scarce. Even in the United States foods were guarded with the utmost care: sugar was carefully dealt out in small amounts to people in homes, restaurants, and hotels, and wheat flour could be had only in limited amounts. Your mother can tell you that it was often impossible to buy more than a pound of sugar at a time. Why? Because the United States was shipping millions of tons of food — wheat, corn, and other grains, potatoes, and meats — to England and France.

On November 11, 1918, people in every part of the world went wild with joy. The news had come that an armistice was signed. The war was over. Germany and her allies had surrendered. France, England, and their allies had won.

Almost immediately the government of every country which took part in the war was faced with the problem of returning to the ways of peace. For four years the energies and thoughts of every person had been concentrated on war. Suddenly peace had come. Can you imagine the gigantic problems which faced every country?

In the first place, about 49,000,000 soldiers had to be taken care of. As soon as possible they must be returned to their homes. They must have work at once in order to support themselves and their families. In a few weeks' time great divisions of soldiers left the trenches and went home to city, town, village, or farm. The men who owned farms that had not been destroyed were fortunate indeed, for they could go back and begin work at once.

In the industrial nations, however, less than half the men had formerly been farmers. The others, a huge number, had to find places in mines, stores, schools, factories, railway and steamship companies — in every kind of peacetime occupation that could be reorganized. There was trouble and tragedy and confusion. Some of the companies for which men had worked in prewar days had gone bankrupt and were no longer doing business. Many of the factories had turned to the manufacture of war machines and had to be completely reorganized. It required time to make these changes. While they were being made, millions of men who had endured endless misery in the trenches waited, out of work.

The years between 1918 and 1925 were almost unbelievably terrible years for Europeans, as the wounded nations slowly recovered and gathered strength.

Cost of the War

1. Twenty million lives lost

The war had been won by the Allied armies. But what a horrible price had been paid by the victorious as well as the conquered nations!

The most shocking result was the wiping out of millions of human beings. Most historians agree that no less than 20,000,000 lives were lost. Imagine such a number! That is as much as half the population of Great Britain or France. That is almost as many people as there were in the twelve largest cities of the United States in 1930.

Fifteen countries in Europe had men bearing arms. During the four years nearly 59,200,000 men had been trained, equipped, and made ready to fight. Russia alone had 12,000,000 soldiers; Germany, one forty-fifth the size of Russia, had 11,000,000; Austria-Hungary had 6,500,000; the British Empire had 7,500,000; France had an equal number; and Italy had 5,500,000. The United States, which did not enter the war until 1917, had 4,300,000 soldiers. Other countries — Japan, Belgium, Turkey, etc. — brought the number up to 59,200,000. Of these nearly 10,000,000 — about one out of every six — were killed in battle. About 10,000,000 other people died of disease and starvation or were killed in the destruction of cities and towns. In all history there has never been a war that could compare with the World War in the destruction of human life.

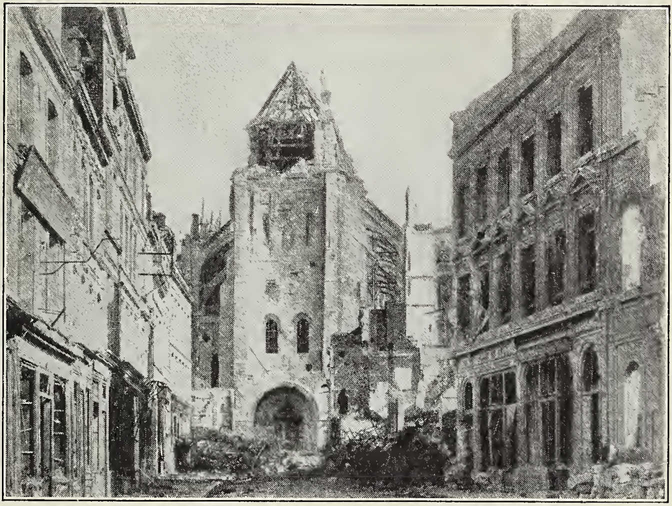


FIG. 167. Many cathedrals like that shown in the illustration, some of which had taken centuries to build, were ruined by explosions from the big guns during the World War. The homes of many city dwellers were destroyed, and the people were obliged to flee for their lives

2. The cost not less than $186,000,000,000

Although the destruction of human lives in the great war was unbelievably terrible, it was not the only loss. The loss in property also was shocking. The United States War Department made a very careful estimate of the losses to the warring nations. It took into account the destruction of property, the upkeep and equipment of armies, and war debts. The total was no less than $186,000,000,000. Millions of lives and billions of dollars thrown away, and for what?

In four years a continent had been smashed. Europe crashed, and the whole world was affected to some extent by her fall. Peace and well-being had given way to unchecked hate. Frenchmen and Englishmen united in hatred to kill Germans and Austrians. Germans and Austrians hated Englishmen, Frenchmen, Italians, and Russians — almost the whole world. Even Americans, who had never borne any grudges toward European nations, were taught to hate Germans, Austrians, and Turks.

Examples of destruction

Can you imagine a sixteenth of our own country laid waste? That is what happened to France. Let us consider merely the losses in the northern part of France, from the English Channel to the Lorraine iron district. Some 4000 villages were destroyed. About 20,000 factories were blown up. In round numbers, 500,000 homes were ruined. More than 7000 schools were either destroyed or closed by the time the armistice was signed.

Throughout the war district there were 8,000,000 acres of land filled with rubbish that had to be cleared away before farmers could work their land again; 4,000,000 acres had to be cleared of barbed wire, shell splinters, and other debris. Nearly 300,000 acres had been so torn up that vegetation would probably never grow there again.

Unless you have gone through this region of France and have seen the results of such destruction, you can never really know what ruin the war brought. Great sections of prosperous cities were destroyed to the ground. Factories were blown to bits. Fruit trees were sawed down or ruined by shot. The soil was riddled by explosives shot from big guns, poisoned with chemicals, and studded with unexploded shells.

The few houses left standing were sorry sights. Their roofs had been blown off and their floors had caved in. Furniture and household equipment had been carried off. Articles that had been treasured by French families through many generations were gone.

This was the condition on the western front — in France. On the eastern front the same events had occurred on the soil of Poland. The same destruction and ruin were everywhere. Russian, Austrian, and German armies had tramped back and forth across the territory, ruining farms, burning villages, and driving before them hundreds of thousands of homeless refugees — old men, women, and children. Along the roads the tired train of war victims straggled, carrying what few light belongings they could gather together hastily.

Other regions also were the scenes of destruction.

In Asia Minor there was a battle front where our allies fought the Turks. The entire Balkan Peninsula had also been swept

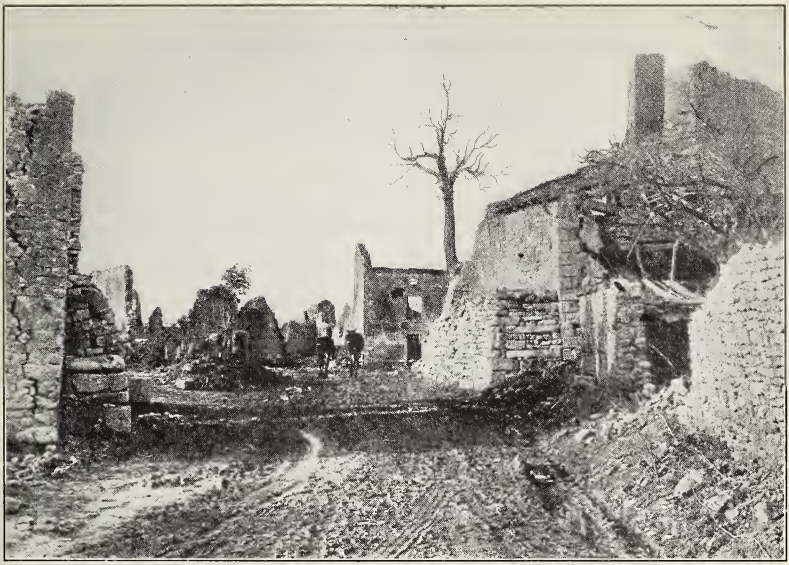
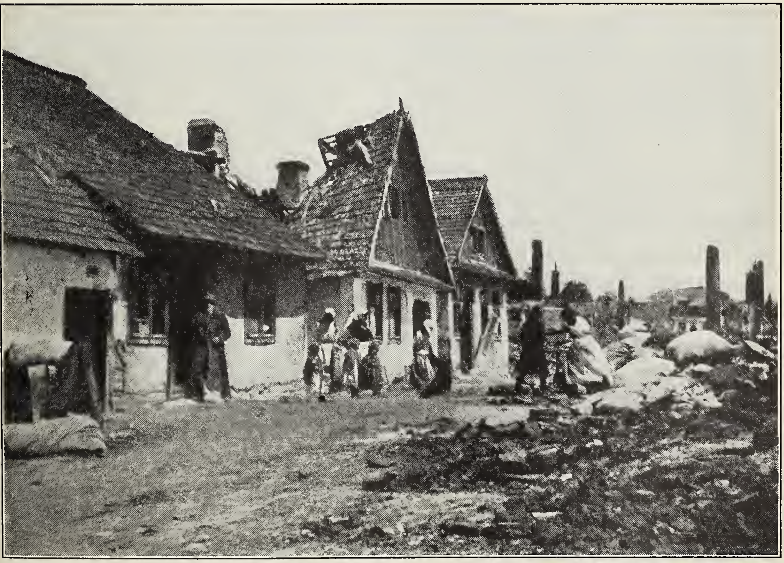


FIG. 168. This shows all that was left of the main street in a small French town at the end of the war



© International Film Service

FIG. 169. Sometimes during the World War armies had to destroy their own towns in order that food and other supplies might not fall into the hands of the enemy. The Polish town shown in the picture is one of these

into the struggle, and the losses in those regions were heavy. The boundary between Italy and Austria was another scene of destructive fighting.

3. The debts of the countries of Europe

You can imagine what tremendous sums of money were needed by every warring nation! Millions of soldiers had to be fed and clothed and provided with guns and ammunition. The governments had to pay them wages too, which, while pitifully small, were needed to help to support the families left behind. How could any government raise the money necessary to do this?

At first it was obtained by taxing the people. But even the heaviest taxes could pay for but a few months of fighting. As the war went on money, like everything else in the fighting countries, gave out. France, Italy, and the smaller nations were forced to borrow. First they went to Great Britain, for she was wealthier than they; but at last Great Britain reached the bottom of her purse.

Even before 1914, the United States had become a very wealthy country. Her farm lands were producing large crops. Her territories contained great amounts of coal, oil, and other minerals. Her people were numerous and industrious and had saved money. So the people of the United States were in a position to lend money to Great Britain, to France, and to their allied nations. Altogether, more than $20,000,000,000 was raised in this country and lent to these allies to carry on war.

In 1918 there was hardly a European country that had not sunk deeply into debt. France, Italy, and the smaller countries owed Great Britain huge sums of money, and finally they all owed money to the United States. At the close of the war it was estimated that England alone owed the United States $5,000,000,000.

Do you see what such a situation meant to the people of Europe? In the end the money to pay these enormous debts would have to be raised *from the people themselves*. In England, for example, people of moderate income still have to pay half of what they earn to the government in taxes. In the other countries also taxes are very heavy. Even in the United States the people have to pay income taxes, but these are very, very small when compared with those paid by European people today.

European Industries and Transportation Broke Down, and as a Result Millions of People Were Unemployed

One of the worst results of the war was the human suffering caused by the breakdown of industry and trade throughout the leading countries of Europe.

On November 11, 1918, the joy of the world at the return of peace was marred by grief and mourning. The war had lasted so long that millions of people were on the verge of starvation in Belgium, Germany, Austria, Poland, Russia, the Balkan countries, and the Near East. Relief trains bringing food, clothing, and medical supplies were hurried to these peoples.

The United States and other countries outside Europe sent quantities of food into the Near East, France, Great Britain, and Belgium, as well as into central and eastern Europe. Bread lines were formed in the streets of the towns and cities. Hungry mothers and their children, old men and old women — all weak from starvation — shuffled up to receive small amounts of food and warm clothing.

The work of restoring the industries of the stricken countries was even more discouraging than the work of bringing relief to the people. Coal mines had been flooded with water in some sections. Factories had to be rebuilt. New machines were needed. Railways had to be repaired and newly equipped. All these peace tasks took money, and there was no money; so the United States helped Europe with money to rebuild her industries.

The coal mines of Great Britain illustrate how one industry had suffered. In 1913 Great Britain produced 292,000,000 tons of coal. In 1921 she produced only 163,000,000 tons, a little more than half as much. In 1913 she exported 77,000,000 tons of coal and coke; in 1921 only 26,000,000 tons were exported.

All these results of the war, although they may seem distant and unreal to us, meant intense human suffering, even starvation. In Great Britain, France, Germany, and other European countries thousands of coal-miners were out of work.

The use of iron in Great Britain, France, and Germany showed the same decline. In 1913 Great Britain imported more than 7,000,000 tons of iron ore for her steel mills. In 1921 the mills were able to use less than 2,000,000 tons. Can you see that such a great decline must have meant that steel mills were closed and men were walking the streets jobless and hungry, worrying about their family's support?

Decline in German Trade, 1913–1923
Exports in Dollars

	1913	1923
Manufactured articles	16,069,000	10,765,000
Foods	2,548,000	298,000

Here is a table which shows how German exports dropped between 1913 and 1923. These figures tell a story of ruined businesses. Similar drops occurred in exports of other articles. In 1923, after five years of trying to recover from the war, Germany was selling less than half as many goods as in 1913.

Of course suffering from the war was much greater in Europe than anywhere else in the world. Nevertheless the entire world felt the effect of the breakdown of European trade. When Europe could no longer mine coal and make steel and manufacture goods for export, she could not exchange her products with her old customers for food and raw materials. The number of ships going from England to the world ports dwindled each year as the war went on. Farmers who raised wheat in other countries, and who needed manufactured goods, suffered because they could not get them. The business of cotton-growers in Egypt and India came almost to a standstill. Trading all over the world was upset by Europe's war.

What Happened to the Cities of Europe at the Close of the War?

The suffering on the farms of Europe was great, but in the cities it was very much worse. Most people on farms managed to produce enough food to keep alive, but in the cities people were forced to depend upon others for their food.

1. Vienna

Vienna, the capital of Austria, probably suffered more than any other European city, for during the war it had been completely shut off from trade with the outside world. There was little coal to burn. Little wheat came from farms to make bread. There was little money to buy raw materials. Men, women, and children were close to starvation.

Some of the young children of Vienna had never seen or tasted milk. Great numbers of babies died. Many ragged children begged in the streets for food. All faces showed the mark of hunger. People were listless, dull-eyed, and downcast in a city that had been world-famed for its gay, well-fed crowds.

2. Moscow

Moscow had been one of the finest cities of Russia, but terrible changes occurred as food became very scarce. The peasants had left the fields to go to war, and there was so little food for sale that people finally poured out of the city into the country to find their own food. Along the roads leading from Moscow straggled processions of hungry refugees.

They could not leave Moscow by train, for there was no regular service. Often people had to wait two or three days for a train because the government was using all its means of transportation to carry troops to and from the front. Travel was anything but comfortable, for both the railway station and the cars were dreadfully dirty and neglected.

Many people who did succeed in finding their way to the country remained there. Moscow, which before the war had had a population of 2,000,000 people, shrank during those terrible years to less than 1,000,000 inhabitants. Starvation and disease combined with the war to cause this shrinkage.

3. In French and German cities

In 1920 a writer summed up the condition of the French cities by saying that the mind of the people was sick. Everyone was changed by the war. The men who had fought or suffered in the trenches had lost their old willingness to work and would not work at all if they were not offered very high wages. They were looking for pleasures to drown their memories.

Shortly after the war had ended, the food situation in Germany was one which would have seemed like the worst kind of hardship to well-fed Americans. It was so hard to get meat from the butcher shops that one had to have a ticket to obtain any; even then the shares were small, and the meat was poor.

Poultry and game could be had a little more easily — if one had enough money. But they were so expensive that only wealthy people could afford to buy.

The blockade of the coast by the Allies had reduced the supplies of fish sold in Germany; there was almost no butter, milk, or eggs; coffee and tea were very scarce; there was little fat or oil; — in fact, there was little of anything except potatoes, cabbages, beets, and turnips.

WHAT GERMANY AND HER ALLIES HAD TO PAY THE VICTORIOUS COUNTRIES

There is not space here to tell much about the treaty that was made at the close of the war. The exact amount of payments to be made by the defeated countries has never been definitely decided. But huge amounts of lands, raw materials, and goods, as well as money, were demanded as payment for the destruction due to the war. Germany lost part of her European empire and her lands in China. All her colonies in Africa were divided between France and England, and she was left without her empire in foreign lands.

Two of these regions — Alsace-Lorraine and Upper Silesia (see figure 170) — were very valuable to Germany, for they were two of the richest iron and coal mining centers on the Continent. Lorraine had splendid iron mines and Upper Silesia had vast coal beds. Germany now had to depend chiefly upon the Ruhr fields for coal.

In addition to these losses of territory Germany was required to give large quantities of her own coal to France and other allied nations. She agreed to send them locomotives, cars, machinery, even livestock, and to pay billions and billions of dollars (reparations) for damage done.

Austria-Hungary also was divided and cut down to almost half her former size. Austria became a small independent country, and Hungary became another. Czechoslovakia, Poland, and Yugoslavia were new independent countries which were created out of parts of Austria-Hungary, Germany, and other territories. As a result of the war the boundaries of Turkey and the Balkan countries were changed, and Syria, Iraq, and Palestine in the Near East became new countries on the map.

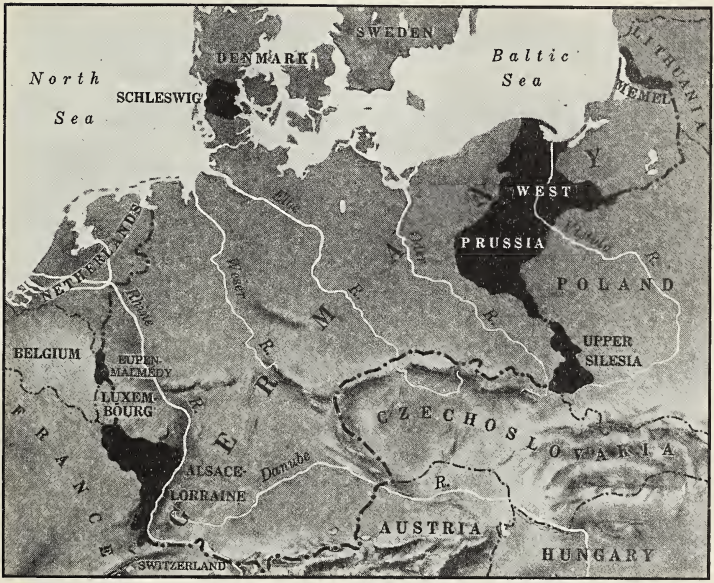

SWEDEN
DENMARK
North Sea
SCHLESWIG
Baltic Sea
LITHUANIA
MEMEL
WEST PRUSSIA
POLAND
Vistula R.
Elbe
Oder R.
Weser R.
Rhine
NETHERLANDS
GERMANY
BELGIUM
EUPEN-MALMEDY
LUXEMBOURG
UPPER SILESIA
CZECHOSLOVAKIA
FRANCE
ALSACE-LORRAINE
Danube R.
AUSTRIA
HUNGARY
SWITZERLAND

FIG. 170. The lands in Europe lost to Germany as a result of the World War

The illustrations which we have given are very brief, but they will show you how thoroughly life in Europe was upset by the World War.

IN THE MEANTIME THE TRADE OF THE UNITED STATES INCREASED GREATLY

How did the condition of Europe affect the United States? Before 1914 the United States had developed a valuable trade all over the world. With the coming of the World War the increase in business and in the value of American farms, mines, factories, and banks was very great.

Remember that in 1914 most of the European countries could not even produce enough food for their own soldiers and for their workers at home, much less for export. Their factories were straining to the utmost to turn out implements of war.

American farmers, merchants, and manufacturers were called upon by Europe to provide food, raw materials, and manufactured goods. The workers of the United States worked hard to meet these demands, and the result was a tremendous increase in production such as had never before been known in modern times.

Note in the table the rapid rise in export from the United States one year after the World War began. The United States is given credit for furnishing more than half of all the foods imported into Great Britain in the years 1917 and 1918. Before the war the United States exported large amounts of coal, pig iron, and steel to Europe. During the war these exports increased enormously.

NUMBER OF BUSHELS OF FOODS EXPORTED BY THE UNITED STATES

	1914	1915
Corn . . .	9,380,000	48,786,000
Wheat . .	92,393,000	259,643,000
Oats . . .	1,860,000	96,810,000
Potatoes . .	1,794,000	3,135,000
Rye	2,223,000	12,545,000

The figures are staggering, are they not? We can hardly imagine that one country was able to produce goods in such amounts for shipment to other countries. All these things were mined, grown, or manufactured here in the United States. But great as this amount of shipping was, it did not drain the country too severely. The people of the United States were still being fed and clothed sufficiently, and the United States was providing fuel and manufactured goods for its own people as well as for those of Europe.

VALUE OF EXPORTS OF UNITED STATES TO EUROPE

1914 . .	$1,339,000,000
1915 . .	$2,537,000,000
1916 . .	$3,813,000,000
1917 . .	$4,062,000,000
1918 . .	$3,859,000,000

Other countries, which had formerly traded with England, France, and Germany, now traded with the United States

The war had another very important effect upon the prosperity of the United States. The countries of South America, Africa, and Asia, which had been in the habit of trading with the industrial countries of Europe, found that trade with Europe was now out of the question. But people of the other continents still needed to buy and sell things; so naturally they turned to the United States as a powerful industrial nation.

Trade with Latin America grew rapidly, as Argentina, Brazil, and Chile bought from the United States between three and four times as many goods as in 1913.

The same story might be repeated regarding trade with China, Japan, and other Asiatic countries. Our exports to these regions increased about five times between 1914 and 1920. Uncle Sam had become the greatest manufacturer, miner, and farmer of the world.

Total Value of United States Exports (in Millions of Dollars)	
1914 . .	2,435
1915 . .	2,838
1916 . .	4,421
1917 . .	6,412
1918 . .	6,054
1919 . .	8,059
1920 . .	8,439
1930 . .	3,843
1935 . .	2,281

Before the war England and Germany had been the world's greatest trading nations. With the coming of the war the United States took their place for a time and has since been running them a close race. In 1920 it was estimated that the United States supplied about one third of the manufactured goods sold in world trade! She had become a great trading nation.

The United States was also forced by the war to become the banker of the world. Money flowed into American banks as it had flowed into English banks before 1914. New York City became the greatest financial center in the world. In the four years of the war several thousand Americans became millionaires. American products were so urgently needed in other parts of the world that great profits were made by increased trade. People who had never saved a cent of money began to have bank accounts, to invest their savings in stocks and bonds, and to make more money. It was a time of unheard-of prosperity for America.

During the war American farmers also became very prosperous. Farm land increased in value many times. Farmers planted larger crops than ever before, and they were able to sell immediately all that they could raise.

So it was that the United States became the creditor of the world, the banker of the world, and a great trader with the world.

Many European peoples believed that the United States became rich because of their misfortunes. This was not entirely true, however. The United States could scarcely keep from becoming prosperous. The people of Europe *had* to have food and supplies; the United States was the country best able to supply them, and the increase in industry, agriculture, and trade could not fail to enrich the country.

Now You Can Understand the Dangers in the Interdependence of Industrial Countries

All this terrible story of the war has shown you what happens when the friendly relations among interdependent countries are destroyed.

Before 1914 Germany had been the center of European land trade as Great Britain had been the center of sea trade. All the countries of Europe depended upon one another for food, raw materials, fuel, and manufactured goods. There had been a steady flow of trade by rail, waterway, and road which had cut across all boundaries. War came, and the parts of Europe were separated from one another. Great suffering resulted not only during the four years of the war but for a long time afterwards.

Do you think it is true that

The more a nation becomes industrialized the more it is affected by changes in other parts of the world, and the less it can live by itself?

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT VII

THE INDUSTRIAL COUNTRIES OF EUROPE AFTER THE WORLD WAR

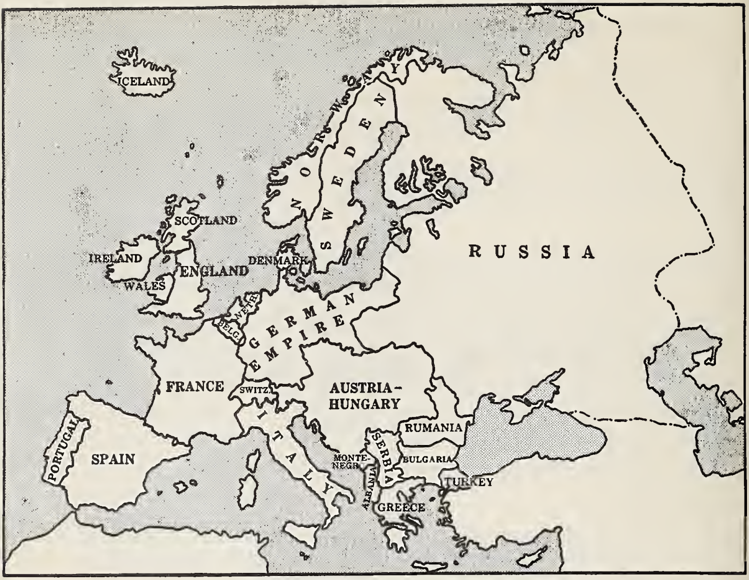
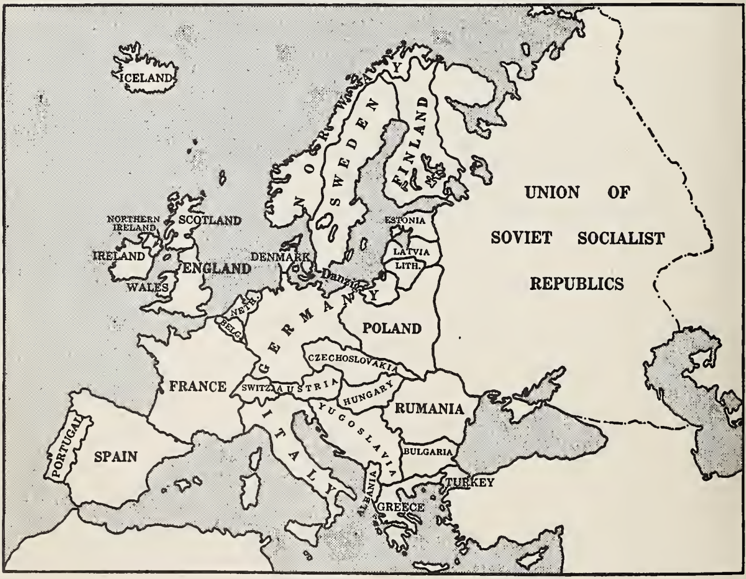

ICELAND
NORWAY
SWEDEN
SCOTLAND
IRELAND
ENGLAND
WALES
DENMARK
RUSSIA
NETH.
BELG.
GERMAN EMPIRE
FRANCE
SWITZ.
AUSTRIA-HUNGARY
PORTUGAL
SPAIN
ITALY
RUMANIA
MONTE-NEGR.
SERBIA
BULGARIA
ALBANIA
TURKEY
GREECE

Fig. 171. Europe in 1914


ICELAND
NORWAY
SWEDEN
FINLAND
UNION OF SOVIET SOCIALIST REPUBLICS
NORTHERN IRELAND
SCOTLAND
IRELAND
ENGLAND
WALES
DENMARK
ESTONIA
LATVIA
LITH.
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NETH.
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GERMANY
POLAND
CZECHOSLOVAKIA
FRANCE
SWITZ.
AUSTRIA
HUNGARY
RUMANIA
YUGOSLAVIA
PORTUGAL
SPAIN
ITALY
BULGARIA
ALBANIA
TURKEY
GREECE

Fig. 172. Europe in 1920

CHAPTER XVIII

EUROPE'S ATTEMPTS TO RECOVER FROM THE WORLD WAR

When the World War ended in November, 1918, Europe was indeed a sick continent. Mines and factories were closed. Railroads and roads were out of repair. International trade had practically ceased. In 1918 the industrial life of all Europe was indeed badly upset. Now, over twenty years later, what is the condition? Has Europe recovered? Let us see.

Outwardly the key industries of Europe soon seemed to be running smoothly again

After the peace treaty was signed the first steps were to rebuild the railways and roads, to start the telegraph and telephone systems, to send freight ships over the oceans, rivers, and canals, and to establish airplane routes all over Europe. Even in the first ten years the peoples of Europe succeeded in doing these things. Indeed, five years after the close of the war railroad trains were running on schedule time all over the continent. Fine macadam or concrete roads were laid through the lands of the modern countries. Excellent long-distance telephone and telegraph service connected the larger cities of Europe with one another, and wireless telephone conversations could be carried on between Europe and other parts of the world. Radio was in everyday use. The oceans, rivers, and canals were alive with traffic and seemed to be as busy as before the war. A remarkable system of air travel was developed so that all the countries of Europe were joined closely together. By 1930 airplanes, hangars, and airports were built in every country. And it was becoming nearly as easy and natural to travel by air as by rail.

Meanwhile, coal and iron mines which had been closed during the latter part of the war were reopened, new ones were developed, and enormous amounts of coal and iron ore were mined throughout Europe (figures 173 and 174). In the Ruhr valley in Germany, in the Lorraine district in France, and in England factories and steel furnaces ran furiously both day and night.

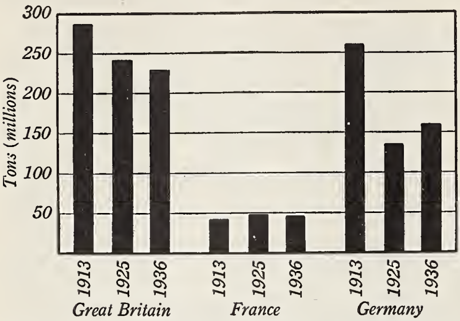


FIG. 173. Coal production in the three leading industrial countries of Europe

With the signing of the armistice, trade began again among the warring countries. No sooner had railways, waterways, and roadways been repaired than goods began to be exchanged, in small quantities at first, but in larger and larger ones as the years passed. For example, the table on page 379 shows German exports and imports in 1913 and 1927. At the close of the war Germany's trade had fallen to one third of its 1913 value. Even as late as 1923 the Germans had little money with which to buy goods from other countries. However, by 1927 factories were turning out goods of all kinds, and German merchants were selling more than before the war. This had taken place in spite of the fact that the population of Germany was smaller than in 1913 by several million people.

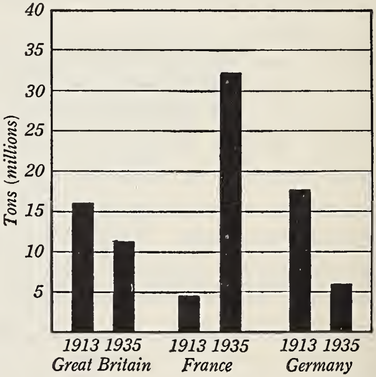
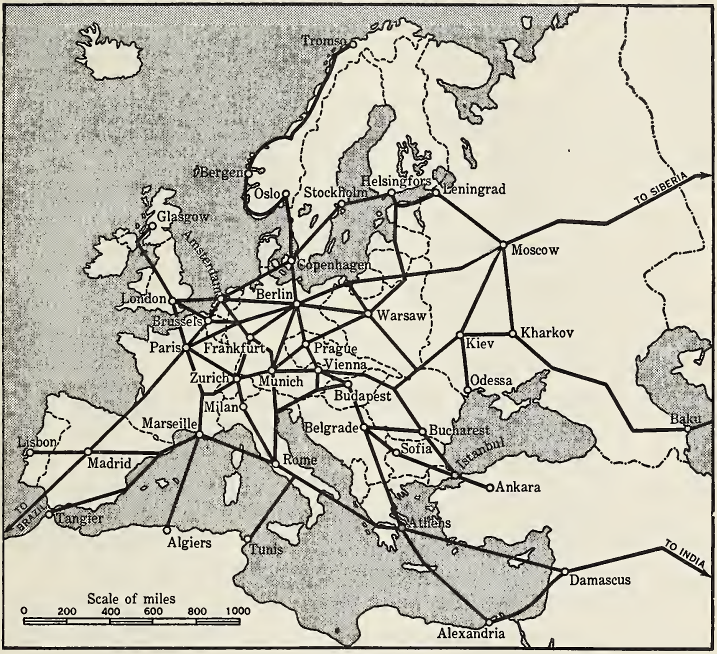


FIG. 174. Iron production for 1913 and 1935 in the three leading industrial countries of Europe. France's great increase in iron production is due to the iron mines which she received from Germany after the World War

Great Britain and France were also trading with the outside world more than in 1913. In 1927 Great Britain imported from all countries more than $5,000,000,000 worth of goods. She had imported about $3,000,000,000 worth in 1913.


Tromso
Bergen
Oslo
Stockholm
Helsingfors
Leningrad
Glasgow
Amsterdam
Copenhagen
Moscow
TO SIBERIA
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Kiev
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Frankfurt
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Zurich
Munich
Budapest
Odessa
Milan
Marseille
Belgrade
Bucharest
Istanbul
Baku
Lisbon
Sofia
Madrid
Rome
Ankara
TO BRAZIL
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Athens
Algiers
Tunis
TO INDIA
Damascus
Scale of miles
0 200 400 600 800 1000
Alexandria

FIG. 175. The principal airways of Europe today. Like the railroads, they do not end at political boundaries, but connect all the great cities of Europe

I. FRANCE ATTEMPTS TO RECOVER

The task which confronted the French people at the signing of the peace treaty was as great as that which any other European nation faced. Since much of the fighting had taken place in northern France, the whole industrial and agricultural life of that region had to be rebuilt. This work was started even before the war ended. For example, some of the allies of France had put harbors, waterways, canals, and railways in excellent condition so that they could move troops and supplies. The British and American officers and soldiers who were in France helped to do this.

GERMAN TRADE (IN MILLIONS OF DOLLARS)

Year	Imports	Exports	Total
1913 . .	2563	2403	4966
1927 . .	3360	2428	5788

After the war the schools of France were rebuilt, and the young people were learning some new things which their parents were not taught. They were learning more modern ways of manufacturing and trading. They were studying the markets of the world, the kinds of goods people wanted to buy, and how these things could be made cheaply and efficiently.

The French people were learning how to burn the low-grade French coal, and they were using hydroelectric power on their railways. All these things helped the industries of France.

The French merchant marine grew from about 2,000,000 tons in 1913 to about 3,000,000 tons in 1937. More French ships were carrying French goods than ever before, and the building of the French merchant marine went on and on.

New industries were drawing people away from the land in France as in other countries. The percentage of people employed in agriculture in France dropped to below 50 per cent. In spite of the fact that there were fewer farmers, France was still able to feed her people almost unaided. The French peasant himself did not change to any great extent. He still clung to his plot of ground with the same affection as before the war.

Because of the desire of most French peasants to farm, France has never had much unemployment. In this respect she is better off than either Germany or England. Of course there was a period when there was much unemployment in France. That was during the time when the soldiers were returning to their homes and industry was going back to peacetime work. However, by 1925 the French business men needed many more factory workers than they could get. On the one hand, the government did not want to urge the people to leave their farms; yet, as the industries developed rapidly, the demand for men to run machines increased.

II. Industry and Agriculture in Great Britain

Great Britain did not recover from the war as rapidly as did either France or Germany — neither in industry nor in agriculture. In 1930 there still were over 1,000,000 unemployed people who had to be fed and clothed by the government.

The British people did not realize how seriously their industries had been injured by the war until a great coal strike occurred in

1926. At that time there were 1,250,000 people working in the coal mines, and most of these became idle because of the strike. In addition, the strike seriously affected about 1,250,000 textile workers.

Owing to the coal strike the people of Great Britain lost $275,000,000 in wages and $1,500,000,000 because of the falling off in coal production. In 1913 coal made up 10 per cent of all the British exports; in 1929 it comprised only 6⅔ per cent. The strike, therefore, meant a great loss to England's people.

In addition to her coal troubles Great Britain was not very hopeful about her iron and steel industries. She was rapidly using up her own iron supplies, and in one year had to import over 5,500,000 tons of iron ore. The United States, France, and Germany were leading Great Britain in steel manufacturing. The United States alone produced several times as much steel as Great Britain.

The poor condition of industry in Great Britain was not entirely due to the war and the strike, however. Australia, Canada, and India began to manufacture for themselves more and more products which formerly they had bought from Great Britain. As a result, many English factories had to close and more workers lost their jobs.

In agriculture Great Britain was no more fortunate. Very few of her people returned to the farms after the war. So Great Britain became even less able to raise the food needed by her people than she had been before. In fact, there was so little farming carried on in Great Britain that farm land was worth little. This had been the condition for many years, however, and was not the effect of the war alone.

In spite of the slow recovery of Great Britain's industries and agriculture, she still held her high position in shipbuilding and in commerce. Even in the years immediately after the war, when the trade of the rest of the world was recovering so slowly, British merchants were busily sailing the seas. English ships still carried the largest share of the world's goods, and England was still one of the two biggest bankers of the world.

So much for the attempted recovery of France and Great Britain. What about Germany?

III. Germany's Attempts to Recover

As you know, the German people were nearer to complete ruin at the close of the World War than were the people of any other large country. For four long years they had been compelled to get along without enough food or other necessities of life. In addition to the millions of splendid young men who had been wounded or killed on the terrible fields of battle, millions of people had become sick or died.

Many factories which had manufactured articles used in times of peace had been turned over to the making of things for the war or had been closed altogether. Although industry and trade, transportation and business, seemed to be recovering during the first five years after 1919, most of the people of the towns and cities were suffering great hardships. Millions were out of work. Well-to-do people had lost their wealth and their homes and could not make enough money to buy food and clothing and pay rent.

The affairs of government were in a very bad state also. The emperor of Germany had been exiled, and a revolution had set up a democratic government in place of the empire. This government was somewhat like those of France, Great Britain, and the United States. It had an elected "President," a "Reichstag" (the lawmakers, somewhat like our Congress), and other elected officials. But the business and work life of the people was so uncertain and the people were so little used to democratic government that they hardly knew how to manage it.

Moreover, there were jealous and discontented army and business leaders who tried to overthrow the new government and put back the old imperial one. In 1920, for example, some army officers under Wolfgang Kapp did actually try to organize a new revolution. They murdered Walter Rathenau and Matthias Erzberger, leaders in the new government. Although the revolt failed, it was clear to everybody that the new democratic government was very weak.

In 1925 Friedrich Ebert, the first president of the German Republic, died and the aged General von Hindenburg, the popular hero of the World War, was made president. He remained in office until his death ten years later.

By 1923 the whole country was in a panic. The people, not having work and facing starvation, demanded money with which to buy things. Many of them foolishly thought that that meant running the government printing presses to print paper money. The government began to do that, printing billions and billions of dollars' worth. But, of course, that did not put people to work making things. Soon the paper money was worth so little that no one would accept it.

At last the other great governments — America, Great Britain, and France especially — saw that Germany must be helped. After long meetings of their leaders with German leaders those governments, particularly our own American one, lent Germany billions of dollars. This money helped the Germans to start up their factories and mines and to build new homes for the people. It helped to repair the damage of the war and put people back to work. For five years those loans continued, each year large sums of money pouring into Germany. By 1929 things seemed much better with the German people. Fewer people were out of work.

The new spirit

Even to the visitor who knew little about the Germany of 1914 there were many differences by 1929. For example, the flag above the government buildings was not the old imperial eagle, but a new red, gold, and black banner. There was little of the pomp of the Kaiser's rule in Berlin. Germany no longer wore the signs of royalty; for royalty no longer occupied an important place in the land. The gorgeous uniforms of the officers of 1914 had been replaced by plain workaday clothing.

The very spirit of the country had changed. Before the war, students had had to do a great deal of marching and drilling; for every boy was training to be a soldier. But in the years following the war the youth of Germany became more independent, gayer, and livelier. They worked hard, they studied hard, and they played hard. The young men enjoyed boxing, swimming, wrestling, track, and tennis. They were lean, healthy young athletes. While it was rather rare to see soldiers in uniform on the streets of the cities, it was not at all rare to see young people running relay races along the country roads.

The girls of the old Germany had been told that their interests should center in their homes, their children, and their church. They had been taught by their mothers how to do all the domestic duties — housework, to cook, sew, and the like. After the war, however, young girls in Germany became interested in many other kinds of things as well as household work. They took part in athletic games as heartily as the boys. These young "fräuleins" even competed with their brothers.

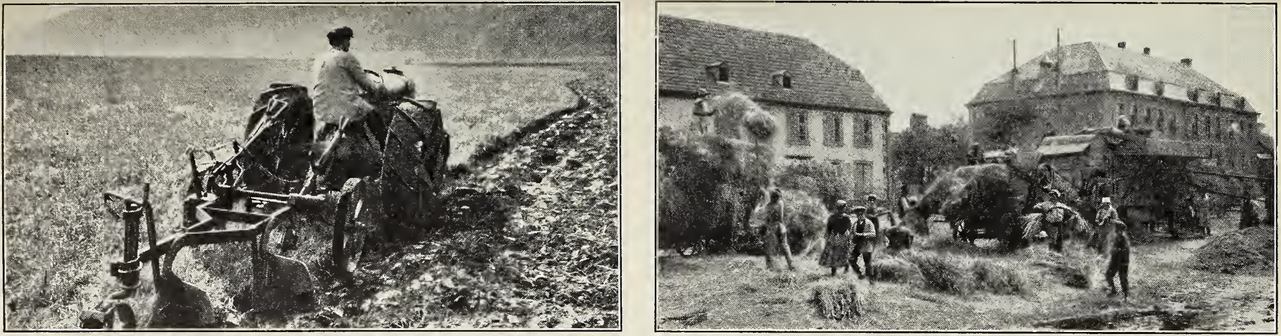
This new spirit also extended to their elders. In the cities young men, middle-aged men, even rather old men became interested in physical training. Often they would gather on a wide level field to exercise together. Germany was interested in keeping fit. This does not mean that one of the chief pleasures of the German people — listening to music in open-air cafés — had disappeared. That was still the most popular pastime of the nation.

Changes in farming

Meanwhile there were changes in agriculture. Farm laborers were poorly paid, and the ambition of young people on the farms was to pack up and go to work in the cities. The movement of workers away from the land was so great in some regions that the landowners came to depend almost entirely upon foreigners to do their work. In East Prussia Polish peasants crossed the border during the planting season and remained until after the harvest.

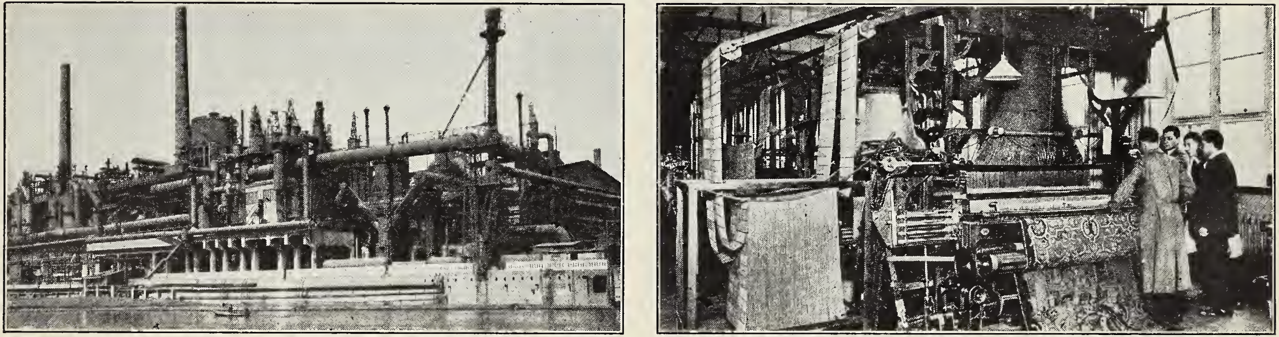
Germany was also becoming more dependent upon the outside world for food than she had been in 1914. This was true in spite of the fact that machines were coming rapidly into use on the farms. Just as before the war, the soil was carefully studied and given the proper kinds of plant food. Swamp lands were drained, so that as much soil as possible could be used to raise food for the German people.

Furthermore, a new industry employing thousands of people was developed in Germany. This was the nitrate industry. Even before the World War German scientists had learned that three important fertilizers are needed to nourish the soil — potash, phosphorus, and nitrate. Germany had more potash deposits than any other country in the world and a considerable supply of phosphorus, but she had no nitrate deposits. Until the World



Machine farming in Bavaria

Threshing in the Saar



One of the great steel mills of the Ruhr Valley

A Jacquard rug loom in a Berlin factory

Ewing Galloway

FIG. 176. In Germany agriculture and industry today are carried on by machines as they are in all industrial countries

War, nitrates had been imported from Chile in South America, but during the war Germany could not get this valuable nitrate supply because of the British blockade. So *German scientists finally learned to make it artificially.* As a result of these discoveries *Germany became the leading nitrate producer of the world.*

And so, because of the new fertilizers and the better use of machinery and scientific ways in farming, and because of great foreign loans of money, which were used for the development of her industries, Germany was beginning to recover her important place in the world.

But, There Were Grave Dangers beneath the Surface!

This, then, is about the way things were going in the countries of western Europe during the first ten years after the World War. The actual ruins of farms and towns, railways and roads, had been cleared away and rebuilt. Transportation and communication seemed, on the outside, to be going as smoothly as in 1913, fifteen years before.

Actually, however, things below the surface were in a very dangerous condition. You remember that in the spring of 1914 most Europeans were fairly carefree. They went to their work each morning with little or no thought or dread of war or of other dangers. But the four years of terrible warfare, with its killing and destruction, spread fear and unhappiness among the people. All through the 1920's, even while people were slowly going back to their peacetime work, an uneasy feeling could be felt everywhere.

There was no getting around the fact: *People were afraid!* Of what? Of war; of losing their jobs and their homes, their loved ones and their health. Something was wrong! The old feeling of security and contentment of 1910, 1911, 1912, 1913, was gone. People looked with dread at one another. Why? Let us see.

Facts To Remember about Europe after 1918

First, 500,000,000 people in 29 interdependent countries

Interdependence! That is the first and most important fact to remember about Europe. There, in an area the size of that of the United States, were 29 separate countries. Not one of these had enough natural resources to manufacture all the things needed. They all had to buy some necessities from other countries.

England had plenty of coal but almost no iron. She had no cotton or rubber. She had little copper or other minerals absolutely needed for manufacturing. And she either had to manufacture and sell her goods to other peoples or starve!

France, having taken some of Germany's land, had both coal and iron, but no oil or cotton.

Italy, trying also to go in for manufacturing, had almost no coal, iron, oil, cotton, copper, rubber, or other absolutely necessary raw materials. And she lacked some foods too!

As a result of the peace treaty of 1919 Germany had lost her colonies, a large amount of her coal and iron fields, and millions of acres of land. And, most important of all, her great world trade was ruined.

On a smaller scale the other 25 countries of Europe were absolutely dependent on one another: no one had enough natural resources to live to itself and give its people a good living. All were tied together by a vast system of railroads, motor roads, telegraph and telephone systems, radios and wireless. And by the middle 1920's these seemed to be running smoothly again.

Second, many nationalities and races mixed together in the 29 countries

If these 29 countries had been 29 states of one country, like the 48 states of the United States of America; if they had been under *one* central government; if they had spoken the same language; if they had regarded themselves as one people, — then, perhaps, real recovery could have come to Europe.

But they were not one people. They were 29 different peoples, speaking more than 29 languages, ruled by 29 different governments. This was in a land area not much larger than that of the United States. Again compare the two:

Europe: 4,411,000 square miles
The United States: 3,750,000 square miles

Now, as you know, practically all the 130,000,000 citizens of the United States regard themselves as "Americans." Today, in spite of the fact that since 1900 millions of Europeans (Italians, Slavs, Jews, etc.) have come to America to live, 90-odd per cent of our citizens can read and write English, and practically all are loyal to our American government. Most important of all, they think of themselves as Americans, not as Californians, or Louisianians, or members of other states.

Moreover, because our 48 states are merely parts of one country, any citizen can travel from any one state into any other one without a passport. (A passport is a government certificate which gives a person permission to travel from place to place.) In our country merchants of one state can ship goods across another state's boundary lines without having them examined by government officials and without having to pay a tax on them.

But not so in Europe! In every European country the foreign traveler must have a passport which shows that the government of that country has given him permission to travel about. Moreover, the traveler must show his passport to the police in the cities he visits, so suspicious have the European governments and people become of outsiders.

Mixed populations within separate countries

Not only are the 500,000,000 European people divided into 29 separate countries, but within many of those separate countries live 5, 10, even more different nationalities! Let us see some examples.

Take the kingdom of Austria-Hungary, which, before the World War, was under one emperor. In 1914 there were 29,000,000 people in that empire, but they were not merely of the two nationalities, Austrians and Hungarians. Ten other nationalities were also living there, each one having a few million or a few hundred thousand people:

Czechs
Slovaks
Moravians
Ruthenians
Poles
Slovenes
Serbs
Italians
Croats
Germans

For hundreds of years each group had spoken its own language. Each one had its separate ways of living. Each one had its own special dress. Here, then, were twelve separate peoples compelled to live in one country and under one government, and each one was more or less suspicious of and more or less unfriendly with the others in that country.

For a long, long time the leaders of some of these peoples had objected to being governed by an Austrian emperor. Each group — Czechs, Croats, Serbs, and so on — wanted to be an independent country with a separate government. At the close of the World War the leaders of the larger victorious countries (President Wilson of the United States and others) tried to rearrange the boundaries of Europe so as to make this possible — not only for Austria-Hungary but for other parts of Europe. But they found the people from Poland in the north to Serbia, Croatia, and Rumania in the south, from the Rhine River in the west to the Black Sea in the east, so mixed up that it was impossible really to do this. Compare maps 171 and 172 and you will see what they did.

They took lands away from Germany and Russia and Austria and made a separate country of Poland.

They separated Austria-Hungary into two countries.

They took lands away from Germany and Austria and Hungary and made the new country of Czechoslovakia.

They took parts of Austria, Hungary, Serbia, Croatia, Dalmatia, Bosnia-Herzegovina, Montenegro, and Slovenia and made the new country of Yugoslavia.

They rearranged the boundaries of such other southeastern European countries as Rumania, Greece, Albania, Bulgaria, and Turkey. They gave Italy lands formerly belonging to Austria-Hungary.

On the west and north they made some boundary changes also; for example, Alsace-Lorraine was taken from Germany and given to France.

Great Britain, France, Belgium, the Netherlands, and Denmark were each made up of people who had one government, spoke one language, and regarded themselves really as people of one country.

What was the result of the making of new countries in eastern Europe? There were slight improvements; for example, nearly all the people left in Austria were Austrians, speaking one language — German. In Poland 69 per cent of the people speak Polish, and some more, in addition, are glad to be a part of the country of Poland. *But for most of central and southeastern Europe the rearrangement left the peoples about as badly mixed up as before the war.* Consider some examples.

Take *Czechoslovakia.* In 1930 its 14,700,000 inhabitants included:

Czechs and Slovaks	9,700,000	Jews	186,000
Germans	3,200,000	Poles	81,000
Magyars	700,000	Others	300,000
Ruthenians	550,000		

Take *Yugoslavia.* In 1930 its 14,300,000 people included:

Serbs and Croats	10,800,000	Hungarians	466,000
Slovenes	1,136,000	Albanians	479,000
Other Slavs	214,000	Italians	3,000
Rumanians	135,000	Others	571,000
Germans	496,000		

Take *Hungary.* In 1930 its 8,700,000 people included:

Magyars	7,800,000	Others (Rumanians, Croats, Serbs, etc.)	161,000
Germans	589,000		
Slovaks	150,000		

Take *Poland.* In 1931 its 32,000,000 people included only 22,000,000 Poles. The others included Germans, Jews, White Russians, and Ukrainians.

Do not try to remember the numbers of different peoples living in each country, or even all of the names. We have listed them merely to illustrate the important point that we do want you to remember that each of the central and eastern European countries still is made up of a greatly mixed-up population. In no one of them do the people speak the same language, wear the same clothes, have the same customs. Although the peoples of each country are under a single government, they do not all feel that they are of the same nationality.

Third, fear and hatred kept these countries suspicious and unfriendly

As we have already said, for hundreds of years the separate peoples of Europe had had little to do with one another; but since the war this ancient disinterestedness and distrust has been whipped up into actual fear and hatred. Many of the governments of Europe, taking control of newspapers and schools, churches, radio, and movies, have taught their people to be more suspicious than ever of all others. In homes and churches and schools French and English and Belgian children have been taught to fear, to suspect, even to hate Germans. Young Italians and Austrians, Italians and Frenchmen, Italians and Yugoslavians, have grown up fearing and suspecting one another. Poles and Germans have learned to fear and hate one another. Czechoslovaks, likewise, have been surrounded on every side by enemies who hated them — Germans, Poles, Austrians, Hungarians, Italians, Serbians and other Yugoslavs, and other eastern Europeans. To this very day hardly a country is free of hate and fear. Fear and hate are spread each day over the radio, through movie newsreels, newspapers and magazines, through political speeches, church sermons, and lectures in universities and schools.

Fourth, fear and suspicion: trade-destroying tariffs between trade-starved peoples

The European countries showed this growing fear and suspicion in several important ways. One way was by building up "tariff" walls.

Do you know what a tariff is? It is a tax that is charged on raw materials or agricultural or manufactured goods that are produced in one country and sent into another one to be sold there. American manufacturers have persuaded our government to pass laws demanding that certain tariffs be paid by other countries on goods coming into the country. For example, if Japanese manufacturers of cotton cloth wish to sell their cloth in the United States, they must pay a tariff, or tax, on each yard. Why? Because they can make cotton cloth for a lower cost than can American manufacturers (their workers are paid much less, and other costs are less than in America). That means that they could sell their cloth here for much lower prices than American manufacturers could sell theirs. Then, naturally, some American people, desiring to save money, would buy Japanese cloth instead of American-made cloth. But if tariffs are charged, and if they are high enough, the foreign manufacturers will not be able to sell their goods here for less than the price charged by American manufacturers. Do you see how this favors our manufacturers?

Tariffs on many kinds of goods have been charged by most modern countries for a long, long time. The United States government started doing it over 100 years ago. After the World War these tariff walls were built higher and higher around the separate countries; the duties became larger and larger.

Do you see what the effects of this would be in a continent like Europe, with 29 *interdependent* countries? We have already learned that no one country could live to itself. Each one depended on buying some things from other countries — coal from one; iron from another; cotton, rubber, oil, hides, foodstuffs from others. They needed things from other countries to live!

So we see that although they were hungry for the crops and materials and goods of other people, yet the governments of each of these 29 countries passed tariff laws making it difficult for the goods to come in. Germany and the central European countries particularly were strangled by these laws.

Turn back to pages 335–339 and figure 159 to review how true that was. In 1914 tens of thousands of trains, trucks, and river and canal boats of every kind had been going back and forth across the boundaries of European countries carrying wheat and other cereals, coal and other fuels, iron and other metals, manufactured goods of many, many kinds. Today trains and trucks and boats are still moving goods from country to country, but not nearly so many. And one of the chief reasons why trade between these countries fell off was tariffs!

Fifth, as hatreds grew, armies and navies grew bigger and bigger

Americans had been sent to fight in the World War to end it, and, to use President Wilson's own words, "to end all war." Peace throughout the world would follow a great victory, he said. Yet, more than twenty years after the war, the nations of the world are armed to the teeth — more than they were in 1913! The table shows that in 1935 they spent three and one half times as much for armies and navies as they had in 1913, the year before the World War began. In 1937 Russia had a standing army of 1,500,000 men; France, of 650,000 men; Italy, of 1,300,000 men;

TOTAL EXPENDITURES OF THE WORLD FOR ARMAMENTS, 1913, 1930, 1935

1913	$2,500,000,000
1930	4,300,000,000
1935	9,300,000,000

Great Britain, of 200,000 men; Germany, of 650,000 men. These were men actually in the army, doing nothing but getting ready to make war. In addition to these there were many millions of trained soldiers who were doing other peacetime kinds of work, but who could be called into the armies at a moment's notice.

What do you think now? Did the first World War (1914–1918) succeed in ending all wars?

Sixth, after 1929 "hard times" came in every industrial country

Probably you have heard your parents and other older people talk about "good times" and "hard times." "Good times," they say, "are times of prosperity; hard times are times of depression." They mean that good times are those years when most people have work and are paid good wages fairly regularly. Hard times are those years when many people are out of work and wages are low — when they have a hard time to get enough to live on.

For some years after 1922 the people of the United States had what was called "good times." Most of them could find work, and wages were better than they ever had been before. Even as late as the spring of 1929 many leading men said that hard times would never come again. It was during these years, 1924 to 1929, you remember, that our bankers and business men lent many billions of dollars to Europeans. It was during these years that Europeans used this money to buy goods from us, and generally to keep things going in Europe.

Then, without warning, came a great business crash! In the autumn and winter of 1929 and 1930 there set in the worst period of hard times that the United States had ever known. As you learned in *Our Country and Our People,* by 1932 no less than 15,000,000 people were out of work. Factories, stores, even banks closed their doors. Millions were near starvation.

Of course our loans to Germany and other countries stopped. Our people stopped buying goods from these countries. Things had not been going any too well there, as it was; so the crash in America was all that was needed to bring about a period of hard times in Europe, in Asia — in fact, around the whole earth. The dreaded thing came quickly to Great Britain, to France, to Germany, to Italy, to every country except Russia (see Chapter XIX). Miners stopped digging coal, iron, and other minerals. Mills stopped making steel, automobiles, and machinery. Factories stopped producing cloth and other goods. Every business was stalled. In London, in Paris, in Berlin, in Rome, in Tokyo, as well as in New York, in Chicago, and in other American cities, people walked the streets asking for food. It was a period of terrifying hardships for millions of people. Except for the World War itself, in 1914–1918, the people of industrial countries had never known anything like it in all history.

To understand one important change that came next, we should review quickly the six important facts that we have learned about conditions in Europe after the World War:

First: The 29 countries had come to depend upon one another for foods and goods — for trade.
Second: There were many quarreling nationalities mixed together.
Third: There was widespread fear and suspicion, even hatred, among them.
Fourth: Although completely dependent on the trade of others, each one was interfering with trade by charging tariffs on goods.
Fifth: Because of growing fear and suspicion each country was spending billions for an army and navy, going deeper and deeper into debt, living on loans.
Sixth: The great difficulties of getting a living suddenly increased after 1929 by a breakdown of business everywhere in the world.

Try, then, to picture to yourself millions of people out of work, many facing starvation, business men unable to carry on their affairs, strikes and rioting in towns and cities, fear and hatred among peoples.

Seventh, changes in ways of governing the countries of Europe

Two kinds of government

In *Our Country and Our People* we learned the difference between two kinds of government:

1. Government by dictator, king, emperor, chief, leader, etc.; that is, one-man government.
2. Democracy: government of the people, by the people, and for the people.

For thousands of years the peoples of the world were governed in one or the other of these two ways. Most of the time a wise or brave man called chief or headman or leader, ruled the family, the clan, or the tribe. Among some peoples a small committee of the older or wiser men or women ruled. Among others kings or emperors, grand khans, sultans, dukes, or counts ruled. But no matter what they were called, throughout many thousands of years of history, in all the continents or islands of the earth, dictator-government — the one-man kind of government — was used most of the time. The chief or leader or king and his counselors made the laws and gave the orders; the people as a whole had to obey them. If the dictator wanted to make war, he made war, and the people had to fight in his armies whether they wanted to or not. If he needed money to live a luxurious life, he made the people pay him taxes whether they had much money or not. He was all-powerful. The people generally had little to say about what they should be allowed to do. If the people objected, or refused to obey, or asked for reasons, they were killed or imprisoned or exiled from the tribe or the nation. The dictator ruled them with an iron hand.

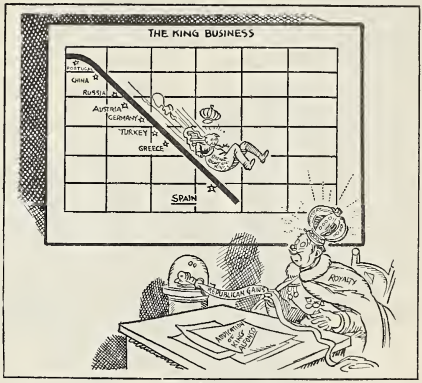


FIG. 177. The downward trend in kingships. Note the "ticker," which Royalty watches so anxiously, and the abdication, which lies ready to be signed. (Sandusky, Ohio, *Star-Journal*, N.E.A. Service)

In most nations or tribes of the earth this one-man kind of government has been followed until our own time. In some places, however, the people started taking power away from the king-dictators several hundred years ago. This was true particularly in the British Isles. First, the larger and richer landowners demanded and got a share in government. Slowly a Parliament (like our Congress of the United States) was made which helped the king pass the laws and settle other matters of government. In the next 500 years the smaller landowners and merchants of the cities also became powerful enough to get the right to hold office and sit in Parliament and make laws. By 1688 this English Parliament had taken so much power that it actually was able to choose the king of England and tell him what his duties and powers should be. Then through the 1700's and 1800's and early 1900's more and more of the English people demanded and finally got the right to vote at elections, to hold offices in government. By 1920 practically every grown-up person was given such a share in government. Today the king has almost no power over government.

This kind of government is called "democracy," or democratic government. It is, as our President Abraham Lincoln once called it in a famous speech, "government of the people, by the people, and for the people." We might add "by *all* of the people," for that is what democracy means: every man and woman and child is to be given the fullest opportunity he is capable of using, to help decide what his people shall do and how they shall do it.[1]

Now the most important thing that has happened to the peoples of the British Empire, the United States of America, France, and the Scandinavian countries, especially since the 1700's, is the steady advance toward democracy in government. One by one the kings and emperors of the world had their power taken away from them, and parliaments and congresses of the people's representatives made the laws and ran the government. It is interesting to know that this took place earliest among the people where education spread most quickly; particularly was this true among such northern and western Europeans as the British, the French, and the Scandinavians.

But among the Slavs of eastern Europe, among the Italians and Spaniards and others of southern Europe, and to some extent among the Germans, dictator-kings still ruled the people right down to the World War, and indeed even to today in many places. In most of these countries very few people were educated until

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[1] In Vol. IV of this series, *America's March Toward Democracy*, and in Vol. VI, *Changing Governments and Changing Cultures*, we shall study the history of democracy in the United States and in the modern world very carefully.

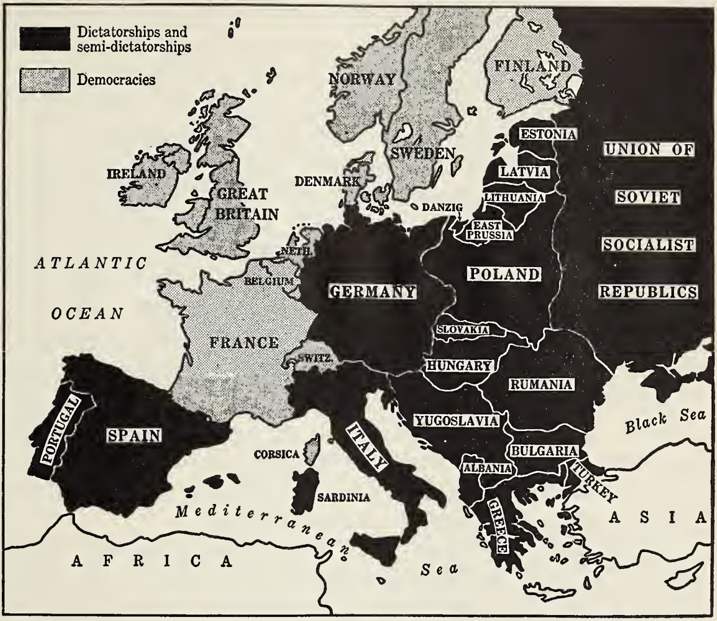

Dictatorships and semi-dictatorships
Democracies
NORWAY
FINLAND
ESTONIA
UNION OF SOVIET SOCIALIST REPUBLICS
SWEDEN
LATVIA
IRELAND
DENMARK
LITHUANIA
GREAT BRITAIN
DANZIG
EAST PRUSSIA
NETH.
POLAND
ATLANTIC OCEAN
BELGIUM
GERMANY
SLOVAKIA
FRANCE
SWITZ.
HUNGARY
RUMANIA
PORTUGAL
SPAIN
YUGOSLAVIA
ITALY
Black Sea
BULGARIA
CORSICA
ALBANIA
TURKEY
SARDINIA
GREECE
Mediterranean Sea
ASIA
AFRICA

FIG. 178. Dictatorships, semi-dictatorships, and democracies cover the continent of Europe today

after 1870, and in them education was really used to make the people loyal to the dictator. Indeed, we can be very sure that the Italians, Yugoslavs, Poles, Austrians, Hungarians, Russians, and other peoples of eastern and southern Europe were not educated enough to make the democratic kind of government work. Certainly by the 1920's, when the carrying on of government had become so difficult, not one of these peoples had really had a good chance to make democratic government work.

After the World War dictators again ruled in many countries

Now we are ready to understand how in more than twenty countries of the world dictators succeeded in taking charge of governments after the World War. Even in Germany, which had gone farther than any other country in the education of its people and which had done so many marvelous things in the fields of science, music, literature, and the arts — even there democracy crashed down! A dictator and his friends got the power and ruled the people just as the emperors of olden days had done.

In nearly half the countries of the world today one man or a small group of men decides all questions of government. Let us consider several well-known examples of such government.

1. *The dictator in Russia.* In November, 1917, a few Russian leaders, — Lenin, Trotsky, and Stalin, and some others, — supported by a small army and about 2,000,000 city people, seized the government of Russia by armed force. They set up a new government which dictated the lives of 168,000,000 people. No one outside of their own party was allowed to make suggestions, to propose plans, or to vote. The small group of leaders dictated (decided) how everything was to be owned. They decided what wages should be paid to workers and what prices should be charged for goods. They told the farmers how to farm their land. Thus for more than twenty years the Russian people generally have had little to say about their own affairs.

2. *The dictator in Italy.* Mussolini. During the last fifteen years government in Italy has also been dictated, or controlled, by one man and a small group of his followers. This is Mussolini and his Fascist leaders who, in 1922, seized the Italian government. They did exactly as Lenin, Stalin, and their friends had done in Russia. They abolished all other "parties" in government, barred every person not in their party from making suggestions, and ran things their own way.

3. *The dictator in Germany.* Hitler. Since 1934 Hitler and his brown-shirted Nazi leaders have ruled Germany by force and terror. The millions of Germans have had little to say about their own government. They have not even dared to make suggestions, to criticize Hitler and his government, or to vote against him.

In a score or more of other countries other dictators have taken complete charge.

In Poland an army general dictates the lives of some 32,000,000 people.

In Greece another general has ousted democratic government, and the 6,000,000 people have had to submit to a dictatorial government.

In China General Chiang Kai-shek controls the government of hundreds of millions of people.

In Japan 67,500,000 more people are without democratic government. There the military party controls the affairs of the nation.

Many other countries could be added to this list of leading dictators and oppressed peoples. In Europe there are Turkey, Portugal, Lithuania, and several Balkan nations.

These few examples will illustrate the manner in which one-man dictator governments seem to be spreading around the world. The leader decides the policies and program; the masses of the people must carry out his orders. Thus from Portugal and Germany eastward across the continents of Europe and Asia to Japan and China, the iron hand of the dictator is supreme. We shall read a little more about these dictator-governments in Chapter XXVIII.

Some Summary Questions

This must complete our short study of Europe since the World War. Our review of the recovery of the warring countries has been very brief, but it has dealt with important matters. It has shown the extent to which people are working again. It has considered the running of the mines and factories and stores. It has shown the condition of transportation and trade.

Our study has dealt especially with the interdependence of the peoples. Are the people of industrial countries as dependent upon one another today as they were in 1914? Are they in as great danger today as they were in 1914? Have they taken any steps to avoid the dangers?

What is the general conclusion that you have reached? Are the countries of Europe recovering? How well off are they as compared to their condition in 1914? Is the standard of living of the people today as high as it would have been if there had been no World War?

INTERESTING READING FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

Bowman. Isaiah. The New World. World Book Company, Yonkers, New York, 1928.

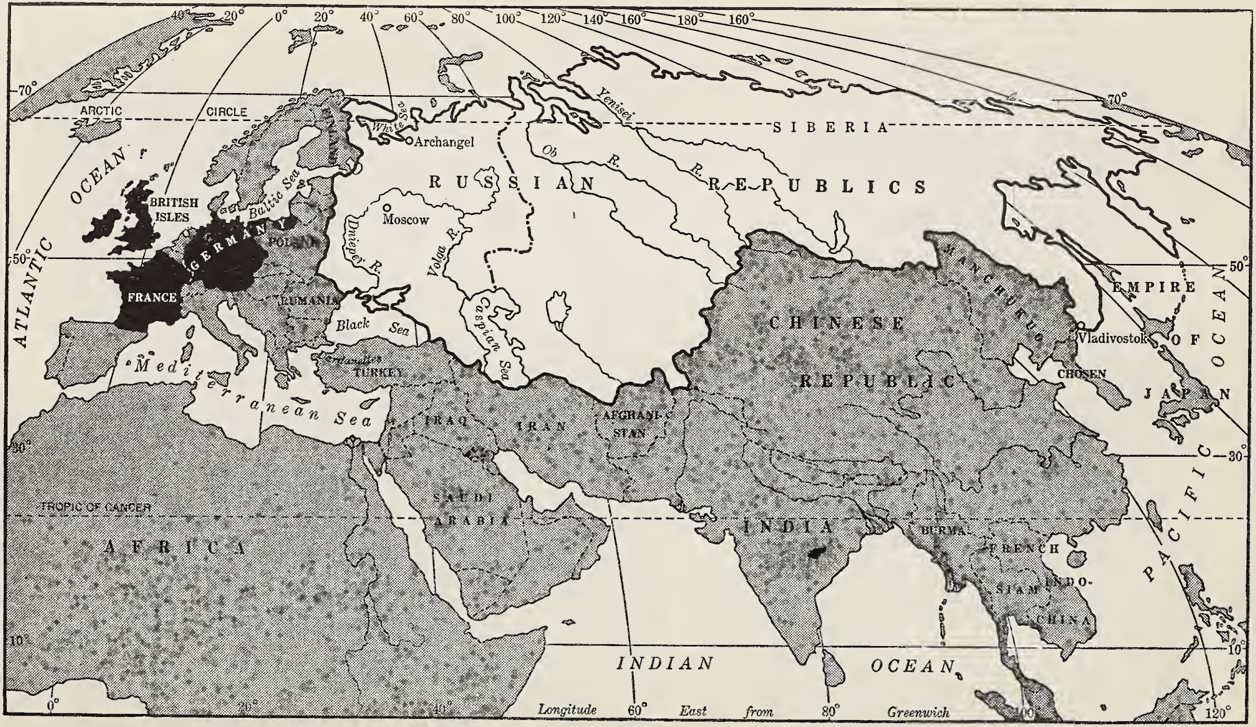

ARCTIC
CIRCLE
ATLANTIC
OCEAN
BRITISH ISLES
FRANCE
GERMANY
POLAND
FINLAND
Baltic Sea
White Sea
Archangel
RUMANIA
Black Sea
Dardanelles
TURKEY
Mediterranean Sea
Moscow
Dnieper R.
Volga R.
Caspian Sea
RUSSIAN REPUBLICS
SIBERIA
Ob R.
Yenisei R.
MANCHUKUO
Vladivostok
CHOSEN
EMPIRE OF JAPAN
PACIFIC OCEAN
CHINESE REPUBLIC
IRAQ
IRAN
AFGHANISTAN
SAUDI ARABIA
INDIA
BURMA
FRENCH INDO-CHINA
SIAM
TROPIC OF CANCER
AFRICA
INDIAN OCEAN
Longitude East from Greenwich
70°
50°
30°
10°
40°
20°
0°
20°
40°
60°
80°
100°
120°
140°
160°
180°
160°
60°
80°
100°
120°

Fig. 179. The extent of the Russian Republics. Compare the area with that of the British Isles, France, and Germany

CHAPTER XIX

RUSSIA SINCE 1917: BUILDING AN INDUSTRIAL NATION

The End of the Czars of Russia

For a thousand years Czars had ruled the Russian peasants with an iron hand. Then, suddenly, between March and November, 1917, a great "political revolution" swept over the country. The ruling Czar and his family were killed and leaders of the city workers took their places.

As you know, the peasants had suffered for a long time under cruel landlords. Although they had been freed from serfdom more than 50 years before the World War began, their condition was still little better than that of slaves. Steadily in the 1880's and 1890's the spirit of rebellion had grown among the townspeople who were workers in factories and stores. From the towns and cities it spread slowly through the villages as the leaders went out into the country to stir up the peasants against their government.

Before 1900 there had been several revolts. During one of them a ruler of Russia had been killed. But these first revolts were crushed by the government; many people were put to death, and others were exiled as prisoners to the mines of Siberia. The leaders of the uprisings then saw that they were not yet strong enough to set up their own government as Americans and Frenchmen had done a century before.

Between 1905 and 1914 the feeling of rebellion became more widespread. The people wanted more power, and year after year they demanded more. Thus the spirit of discontent was kept smoldering, only awaiting a spark to start up the fires of revolt again.

Then in 1914 came the World War. The Russian peasant soldiers, without enough food, arms, or clothing, were forced to fight against the powerful cannon, rifles, and machine guns of the German soldiers. Railways were few, roads were bad, and it was almost impossible to keep the huge armies properly fed and equipped. This meant intense suffering for the armies of Russia.

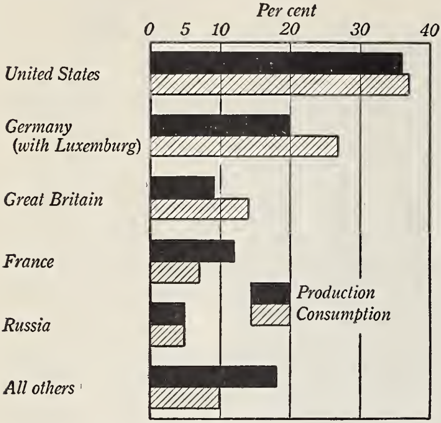


FIG. 180. The production and consumption of iron ore in the five largest iron-producing and iron-consuming countries in the world (1913)

For three years the discouraged Russians continued to fight half-heartedly without proper supplies. Most of them did not wish to fight, indeed they did not know why they were fighting. They wanted to go home and raise their crops and be with their wives and children.

In the meantime the leaders of the working people in the Russian cities were urging the masses to rebel and to take control of the government. The Czar and his generals were engaged night and day in trying to solve the problems of directing the armies and providing food supplies for the soldiers. "This is the people's chance!" said the leaders of the rebellion. "While the Czar and his officials are busy with the problems of war, we, the people, can take the government!"

Finally in March, 1917, things became so bad that the Czar gave up his throne in favor of his brother. The latter, however, refused to accept it unless asked to do so by the new assembly of the people. But the assembly was tired of emperors, and on March 16, 1917, formed a new kind of government. The old officials were dismissed. The spy and police system was abolished. In July, 1917, Alexander Kerenski was chosen prime minister and also minister of war. He ruled Russia for four months.

There was another group in Russia, called Bolsheviks, whose leaders were Lenin and Trotsky. When the Czar's government broke down, Lenin was in exile in Switzerland and Trotsky in New York. These men and their Russian friends in other countries came quickly back to Russia. In November, 1917, they seized the government.

This was the beginning of what has been called "the Russian Revolution."

One of the first steps was to make peace with Germany and Austria. An armistice was agreed upon in December, 1917, and a treaty signed the following March. Small, scattered armies of Russians continued to fight against Germany during the next year, but most of the Russian soldiers left the front and went home.

WHAT WE MUST BEAR IN MIND ABOUT THE OLD RUSSIAN WAY OF LIFE

We have learned that before 1914 over four fifths of the Russian people were farmers. What were the others doing? They were living in towns and cities — some of them running stores and offices, others working for the government. A few were doctors, lawyers, engineers, or teachers. Were any large number of them coal-miners or iron and steel workers, carpenters or machinists? That is, were many of them engaged in industrial work as were so many British, German, and American people?

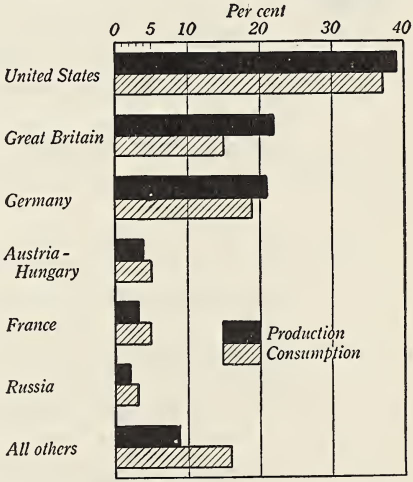


FIG. 181. The production and consumption of coal in the six largest coal-producing and coal-consuming countries in the world (1913)

No. Take an example — the coal and iron industries. Figures 180 and 181 show us that in 1913, the year before the World War began, Russia produced only 2 per cent (one fiftieth!) of the world's coal and 6 per cent of the world's pig iron. At the same time the United States was producing nearly half of the world's coal and iron.

Did Russia have other materials necessary to become an industrial country?

But Russia really had large stores of coal and iron and other natural resources. Before the war her engineers had discovered some of these and had opened up the better ones in the Donets basin in European Russia, not far from the Black Sea.

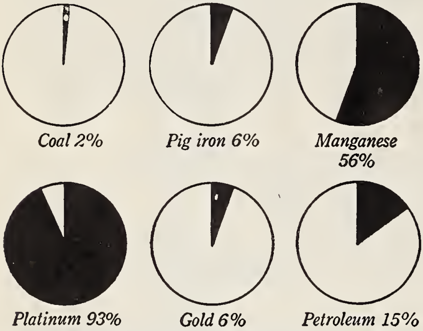


FIG. 182. These graphs show Russia's share of the world's production of important minerals in 1913

Of other minerals too Russia had large stores, and the rich landowners were developing some of them even before the World War. Figure 182 shows what these were. There were enormous deposits of oil near Baku on the Caspian Sea. It was estimated that there is nearly as much oil in the fields of Baku alone than there is in all the oil fields of the United States.

Russia also had minerals needed to make steel. You will remember that steel is an alloy and often contains, besides iron, small amounts of other metals. Certain fine grades of steel, for example, cannot be made without manganese. In 1913 the Caucasus region in Russia produced *more than half of the world's supply of manganese.* Thus the industrial countries of the world depended on Russia for the successful manufacture of much of their steel.

On the circle graphs of figure 182 notice that in the production of one mineral — platinum — Russia was really supreme. It still is. Platinum is perhaps the most valuable metal in widespread use today, being worth several times as much as gold. It too is absolutely needed in certain manufacturing industries. In 1913 as much as 93 per cent of all the platinum used in the world came from the Ural Mountains in Russia, where it is found in the loose gravel of rivers and is easily washed out.

Did Russia manufacture goods before the World War?

There were some industrial regions and factories in Russia, but not very many. There were factories which manufactured cotton and linen goods, soap, and paper. There were shipbuilding plants in St. Petersburg (or Leningrad, as it is now called) which had been started by Czar Peter. There were also a few great industrial plants; for example, the immense Boguslavsky works in the Ural Mountains. Here thousands of men were employed in mines, smelting furnaces, and rolling mills, and doing other kinds of work necessary to turn raw material into finished products.

We see, then, that before the revolution of 1917 most of the Russian people were peasants and craftsmen, residing in countless villages. Most of them got a living out of the soil by hard muscle labor, not through manufacturing and exchanging machine-made goods.

They lived much to themselves. Transportation was slow and difficult, so they traveled little.

Nevertheless, underneath Russia's plains and mountains were the great natural resources needed to build a modern industrial country. Indeed, Russia had enough of the kinds of materials to build even as powerful an industrial nation as our own United States.

Ten Difficult Years

A sick Russia for the new government to revive

Ten years passed after the revolution of 1917 before the new government was able to do much about making Russia into a modern industrial country. During these years, — 1917 to 1927, — while Great Britain, France, Germany, and other countries were trying to rebuild themselves, the Russians faced one trouble after another. At the end of the World War, Russia had lost 25,000,000 citizens. In addition she had lost to other countries 260,000 square miles of land (almost three times the area of Great Britain). Thousands of miles of Russia's railways ran through these territories, and many of her iron reserves were there. All of these she lost. She mined less coal, and this caused thousands of factories and mills to close. Poland, the land in which a large proportion of Russia's mechanical industries had been located, became an independent state. The Baltic port, for which she had fought for so long, was taken away from her. For a while the valuable Ukraine and Siberia also were lost.

In the meantime in the years after 1917 the city people faced starvation. This was caused, first, by a breakdown in the means of transportation ; second, by a terrible drought that came in 1921.

The railroads broke down

During the war and the revolution the railways of Russia were seriously damaged. Many coal mines had stopped operating, so there was little coal for the engines. Rail service stopped and was slow to start up again.

Look at Moscow on the map of figure 159. See the railroad lines which enter Moscow. They look like the spokes leading to the hub of a wheel. Look at Leningrad and other cities and notice their railroad connections. You can easily imagine what would happen to city people in the United States if the trains should stop running. Where would the people get their food — their milk, meat, and flour, — as well as their coal, wood, and other fuels? Those who did not have supplies stored in their homes would have to move out or starve. That is what happened to the people in the cities of Russia.

Mr. H. G. Wells, a famous English writer, was in Russia in 1920. He reported that Leningrad had shrunk from a city of 1,200,000 in 1917 to a little more than 700,000 in 1920. Here was a great metropolis, the capital of a huge nation, dwindling in three years to little more than half its former size. This is what happened to a number of European cities when transportation broke down.

Then in 1921 came drought and famine

Even if there had been ways of bringing food to the cities in the early years after the war, the supply would have been very small. The richest, most fertile farming region of Russia was suffering from long dry spells called droughts. Along the Volga River no rain fell for weeks. The water which was usually stored in the ground was soon drunk up by the thirsty plants. Then the soil became very hard. It cracked open. Crops dried up.

So the grain needed by the city people was not to be had, and the drought of 1921 caused one of the worst famines in Russian history. "The granary of Europe" was empty. Peasants fled from the fields and died by hundreds of thousands. There were 43,000,000 people affected; 13,000,000 of that number were on the verge of starvation.

Disease frequently follows on the heels of famine, and in 1921 Russia did not escape this additional misfortune. Diseases grew into plagues, for there were few medicines to help the sick. Doctors were powerless to stop the epidemics among the people. Crowded conditions, hunger, and dirt always hasten the spread of disease; and most of the Russian people were poor, ill-fed, and huddled together — in many cases a large number of families living in one dwelling.

Thus at the end of the years of war, revolution, and famine the suffering of Russia was so great that the other nations doubted if she would ever regain her former strength.

Civil war inside and foreign war outside

To make matters still worse, the people of Russia were fighting among themselves, as well as defending themselves against invaders from other countries. With hundreds of thousands of city people in danger of starvation, the soldiers of the new government went out to the villages of Russia to take food from the farms. The peasants, feeling that the crops were their own, refused to give them to the government officials. As a result bloody warfare occurred in many parts of Russia; the farmers fought against the new government. Gradually, however, the "Red" army, as the soldiers of the new government were called, put down the rebellion and also defeated the invading troops of foreign countries. By 1922 some degree of peace and order had come over Russia.

During the next few years the farmers enjoyed better weather and went back to tending their farms. By 1927 nearly twice as much land was farmed as in 1922. In the two years from 1924 to 1926 the amount of grain grown in Russia more than doubled. The city people went back to work as factories, stores, and railroads started up again. In 1927 Russia was able to produce as much goods of all kinds as it had in 1913, the year before the World War began.

The standard of living of workers in Russia was still very low

We have already learned that during the years immediately following the war and the revolution the city people and factory workers could hardly get enough food to keep them alive. They also had great difficulty in getting clothing and small manufactured things. For wages they often received articles of food and clothing rather than money.

In 1921 a sample monthly allowance made to a worker in the Ural iron mills was:

45 pounds of rye flour
15 pounds of meat
15 pounds of buckwheat (or other cereal)
A small quantity of butter
Tea or coffee
Salt
Tobacco
Matches

By the end of 1927, however, the general level of wages, though still low, was over twice as high as it had been in 1913; but the cost of food and clothing had also doubled. In general, then, the standard of living was about the same as in 1913. In this respect the recovery of Russia since the World War had about equaled that of Germany, France, and Great Britain.

Though wages were low, the Russian people had many advantages that they lacked before the revolution

There are other important things besides wages and costs to be considered in judging whether a people's standard of living is high or low; for example, schools, medical help, and amusements. Under the Czarist rule almost all the Russian schools had been run by the churches, and people had to pay to go to them. Most of the Russians could not afford to make these payments; so the children grew up without knowing how to read or write. After the revolution the education system changed greatly. Under the new government schools were opened in every village and the children were required to attend. Every boy who served as a soldier in the Russian army had to learn to read and write.

Grownups as well as children went to the schools. After the day's work was over they went to the evening classes. The work of the school centered around the everyday life of the people; for example, arithmetic problems were made up from the kinds of problems met on the farm and in the shop.

The new government is carefully studying the Russian communities and working out improvements for streets and houses. In the center of most villages is a town hall, or community house. Nearly every evening in this building there is entertainment of some kind — motion pictures, a play, a concert, or a lecture. The government sends motion-picture films to each village.

The government of the Russian republics owns the largest publishing plant in the world. As early as 1925 more than 40,000 books and pamphlets were printed there. At that time there were 32 government libraries in the country as well as many private collections of books and small village libraries.

In the days of the Czars only wealthy people and members of the court could afford medical help. Today the Russian people have many clinics where they can get help, free of charge, from nurses and doctors.

We must remember all these things when we think of the standard of living of the Russians. Do you think the Russian peasants were better off, say, in 1927, than they were before their revolution in 1917?

AFTER 1927 THE "INDUSTRIAL REVOLUTION" CAME IN RUSSIA

You know from your earlier studies that a "revolution" is a sudden change in the way a people do things. There are several kinds of revolution; for example:

1. When people suddenly and drastically change the kind of government under which they live, that change is called a "political" revolution.
2. When they suddenly change from raising crops and making goods by the hand-muscle way to the engine-machine way, that change is called an "industrial" revolution.
3. When they suddenly change their customs — their ways of living in families, going to churches, having schools, reading books and newspapers, etc. — that change is called a "social" revolution.

Now, although Great Britain, France, Germany, the United States, and other countries had been making all these kinds of changes throughout the 1800's and early 1900's, Russia had, for the most part, continued her old ways of living.

But after 1917 so many changes were made in Russia so suddenly that we can say that she was having, all at one time, all the kinds of revolution there are! First, the "political" revolution of 1917 gave her a new government. Second, after 1927 especially, Russian agriculture, industry, transportation, and communication changed so suddenly and so completely that we can speak of it as a great "industrial" revolution. Third, Russia had a "social" revolution too. This changed many of her everyday ways of living.

One "Five-Year Plan" after another

The real rulers of the new Russia, — Joseph Stalin and his leaders in the Communist party, — with the help of skilled engineers from Europe and America, made careful plans to make Russia into an engine-machine manufacturing nation as quickly as possible. Their cry was: "Russia has giant natural resources. Our men must find them and be taught to dig in the coal and iron mines. We have vast stores of manganese and aluminum and platinum; let us make use of them! Russia has more than 168,000,000 people. [Russia's population is now increasing by 2,000,000 to 3,000,000 a year.] Let us teach these people how to make and use engines and machines; to build factories in which they can manufacture goods. If we construct dams, we can build great electric power plants in all our rivers. By laying tens of thousands of miles of fine roads, by building railways, by installing telegraph, telephone, and radio systems, each of our 300,000 villages can be connected with every other village. We can have airplane routes all over Russia. We must do these things! Let us teach our people to raise cotton and other products that we now buy from outsiders. Russia shall no longer be a poor, dependent farming country; we will make her one of the world's strongest and richest powers!"

"All these things," they said, "we will do in one generation. What has taken Great Britain and America and other countries from 100 to 150 years to do, we will do in 25! Then our people will no longer be ignorant, dirty peasants, breaking their backs by pulling old wooden plows, living in miserable huts, and shut off from their fellow citizens in isolated, muddy, frozen villages. Instead they will live in fine, clean, electrically lighted houses. They will go to school and learn to read and write. Soon everyone will be enjoying books and newspapers, the radio and the movies, theater, art, and music. Our peasants will be sending their farm products in trains to be sold in great city markets. All heavy labor will be done largely by engines and machines, and our people will have a chance to live like human beings."

No sooner were the plans thought up than the leaders and the people went to work to make their dreams come true. In *Changing Governments and Changing Cultures* and other books of this series, you will read more fully how remarkable changes were brought about. Here we can merely give a kind of outline of what happened.

They sent scout-engineers all over Russia to look for coal, iron, and other raw materials. These men went to the Ural Mountains, which divide European from Asiatic Russia, and to the Altai Mountains in the south. They traveled through the broad steppes where the Kazaks and Kirghiz had roamed with the herds. Some made their way through the wastes and tundra of arctic Siberia; others went down to the hot sands of Turkestan in the south. Everywhere these scout-engineers went they found riches in the earth.

Then the real work of making Russia a modern nation began.

Fourteen hundred miles to the east of the Ural Mountains, in the heart of Siberia, Russian men were put to work digging coal. Near the great coal mines of the Kuznetsk Basin grew several large manufacturing cities — Novosibirsk ("the Chicago of Siberia"); the iron and steel city called Stalinsk (after Joseph Stalin, of course); Stalingrad, where farm tractors, automobile parts, and other things are manufactured.

In the Ural Mountains the Russians built the giant steel city — Magnitogorsk — near the iron "magnetic mountain."

The engineers discovered that great amounts of electric power could be generated by building enormous dams and power stations

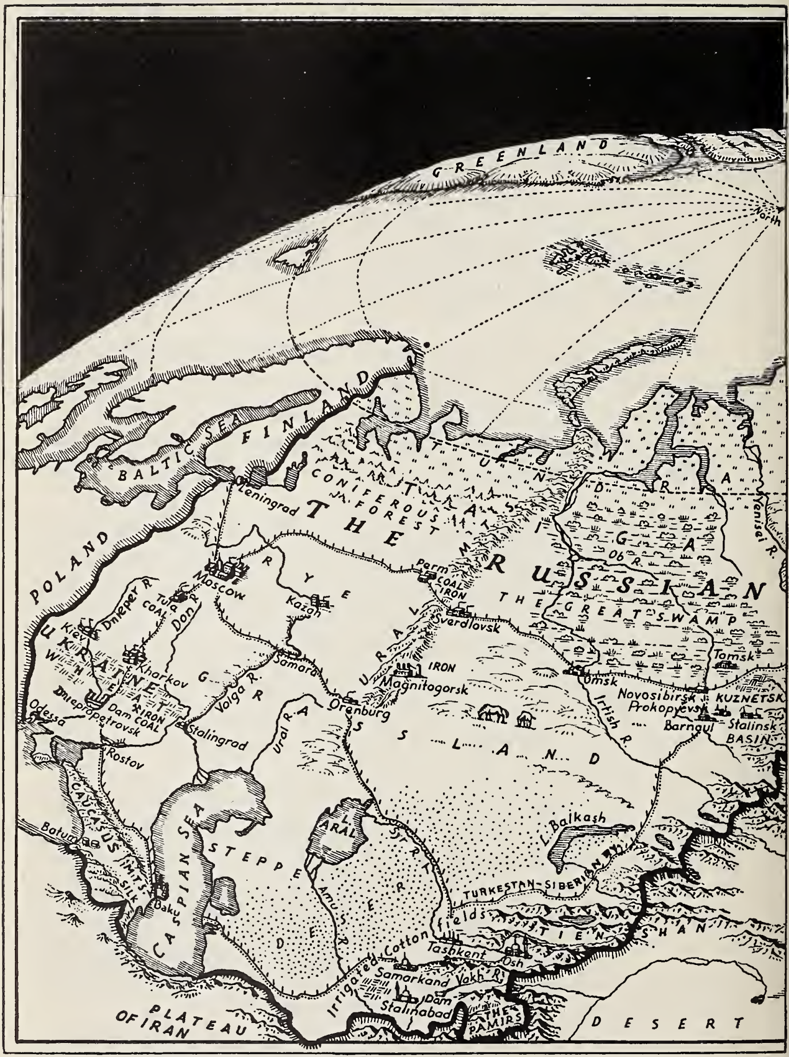
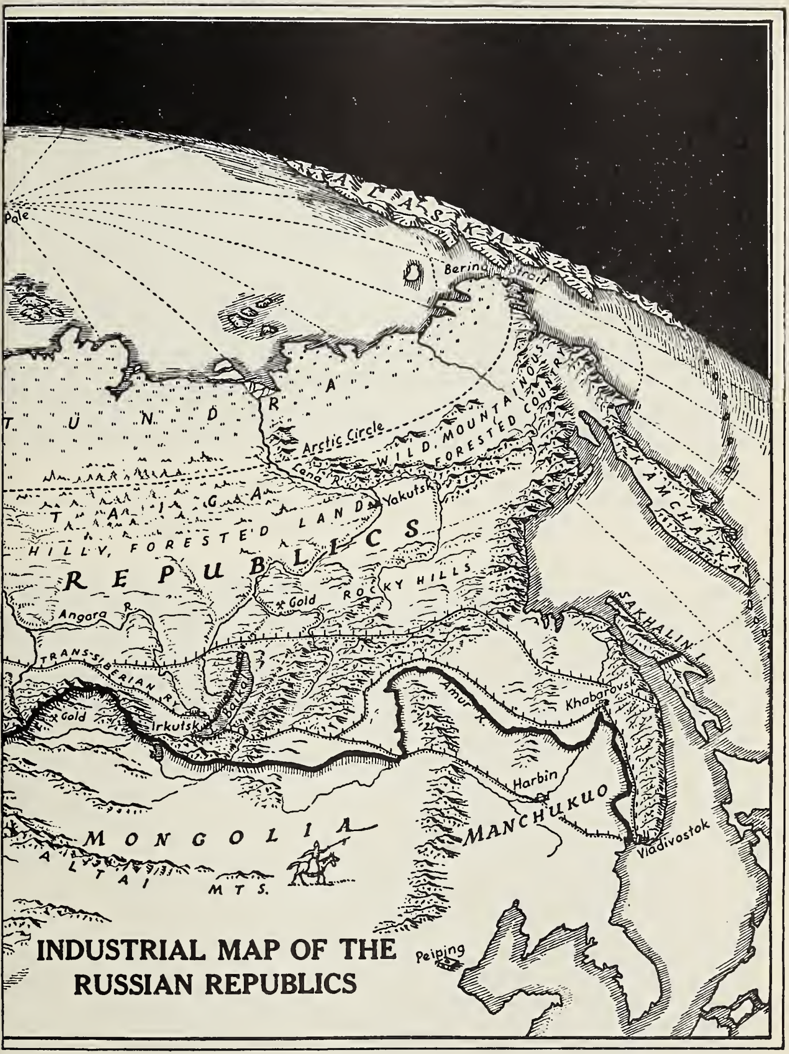

GREENLAND
North
BALTIC SEA
FINLAND
POLAND
Leningrad
CONIFEROUS FOREST
TUNDRA
TAIGA
THE RUSSIAN
Yenisei R.
Ob R.
THE GREAT SWAMP
Moscow
RYE
Kazan
Perm
COAL
IRON
URAL MTS.
Sverdlovsk
Tula
COAL
Don R.
Dnieper R.
Kiev
UKRAINE
WHEAT
Kharkov
G
Volga R.
R
Samara
Omsk
Tomsk
Novosibirsk
KUZNETSK
Prokopyevsk
Barnaul
Stalinsk
BASIN
Irtish R.
IRON
Magnitogorsk
Orenburg
GRASSLAND
Ural R.
Odessa
Dnepropetrovsk
Dam
IRON
COAL
Stalingrad
Rostov
CAUCASUS MTS.
Batum
SILK
Baku
CASPIAN SEA
STEPPE
L. ARAL
Syr R.
DESERT
L. Balkash
TURKESTAN-SIBERIAN
Amu R.
Irrigated Cotton fields
TIEN SHAN
Tashkent
Osh
Samarkand
Vakh R.
Dam
Stalinabad
THE PAMIRS
PLATEAU OF IRAN
DESERT

Fig. 183. A picture map of the Russian republics. What does it tell you



ALASKA
Pole
Bering Strait
TUNDRA
Arctic Circle
WILD MOUNTAINOUS FORESTED COUNTRY
KAMCHATKA
Lena R.
Yakutsk
TAIGA
HILLY, FORESTED LAND
REPUBLICS
ROCKY HILLS
Gold
Angara R.
SAKHALIN I.
TRANS-SIBERIAN RY.
Baikal
Amur R.
Khabarovsk
Gold
Irkutsk
Harbin
MANCHUKUO
Vladivostok
MONGOLIA
ALTAI MTS.
Peiping

INDUSTRIAL MAP OF THE RUSSIAN REPUBLICS

about the kinds of land and ways of living in different parts of the country?

on the Dnieper, the Volga, and other rivers. So they were built. And thousands and thousands of miles of copper wire were strung on great poles out over the countryside to carry power to light the towns and cities and villages and to help to run the factories.

Railroad engineers laid thousands of miles of new tracks: (1) the Trans-Siberian railroad — all the way across Siberia, connecting Moscow and other European cities with Novosibirsk, Vladivostok, and other Asiatic cities of the Far East; (2) the Turk-Siberian railroad, joining the new farming region of southern Asia with the northern industrial centers; (3) many other connecting lines.

All the modern means of sending messages — telegraph and telephone systems, a fine postal system, radio and wireless stations — were installed in many sections of the new Russia.

Engineers irrigated enormous areas of desert land in Turkestan; and, before long, cotton was being grown on thousands of acres of land.

With plenty of cotton at hand, bigger and bigger spinning and weaving mills were built in different sections of Russia.

Farming as well as manufacturing was changed by introducing engines and machines. From the great factories of Novosibirsk and other manufacturing cities were sent out farm tractors and plowing, seeding, cultivating, and harvesting machines.

It is true, however, that many of the farms have changed little. On these the peasants still work the same strips of land. In some places the same bony, undersized horses drag clumsy plows which merely scratch the surface of the soil. Much the same kinds of houses are to be found in the same sprawling villages sheltering the sons and daughters of the new Russia.

However, if you were to stop to talk with one of these farmers, he would probably say that his life has changed in many ways. Perhaps these would be his words: "We peasants still toil long hours and earn little, but we *are* freer, and some are richer. In the old days I was yoked to the plow, like my horse here. Today I still work hard, but now my neighbors and I own much good land. We are not driven like horses, as we were under the Czar. We feel more like men now, not driven beasts. We work to feed ourselves, and work means bread. But we feel that it is our own land we are working."

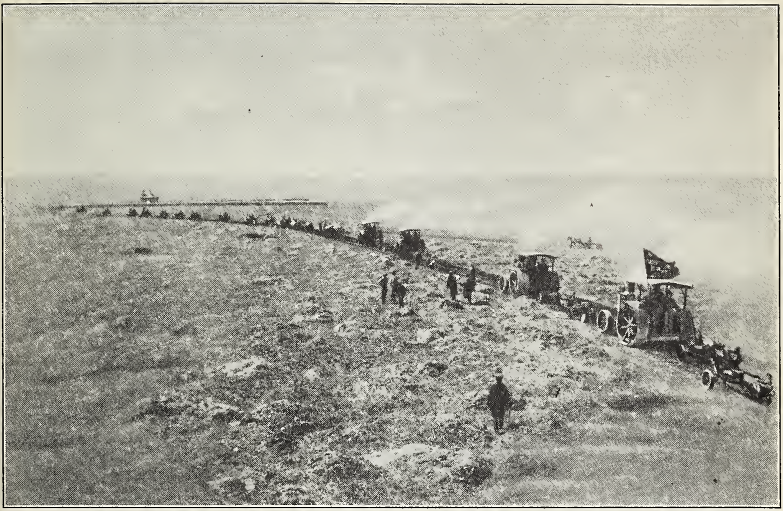


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Fig. 184. In some parts of Russia today thousands of acres of grain-producing land are being prepared by the use of tractors, which have taken the place of the old-fashioned plows. Many of these tractors belong to the community

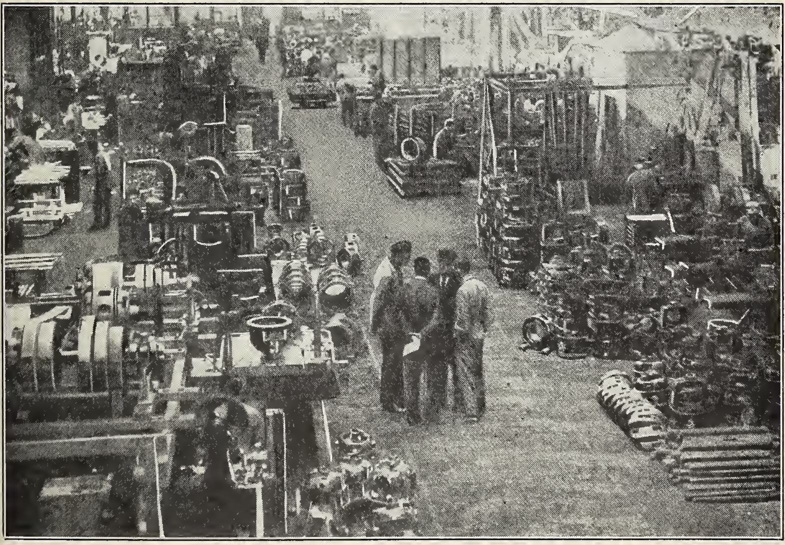

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Fig. 185. This Russian factory makes electric motors. Not only is more gasoline power being used (see figure 184) but more electric power as well

In many other ways also the old peasant Russia is being transformed into a modern country. For example, if you went to a city, say, Leningrad or Moscow, you would notice a great many changes. Perhaps you would stroll into a restaurant. In 1914 this was a club, a gathering place of the richest and best-dressed people of Russia. Gossip rapidly passed from one to another as everyone chatted of the opera, the ballet, the court, of his friends or his enemies. Today the restaurant is filled with peasants and city workers — people in blue shirts, high boots, sheepskin caps and jackets.

If you went to a theater or a library or a museum, you would notice a vast difference in the people there too. The beautifully gowned and jeweled idlers of old Russia are gone. Peasants from the country and laborers from the factory go to these places to see, to learn, and to enjoy. They wear whatever rough clothes they may happen to have.

Russia has long been famous for her dramatists, writers, artists, and musicians. Before 1913 only the wealthy could afford to go to concerts or have books. Today museums, libraries, and concerts are attended by crowds of working people. Another important thing to know about the new Russia is that musicians and painters, poets and novelists, architects and landscape gardeners, and other kinds of artists are increasing in number.

So it is that in twenty years Russia has become a very different country from what it was under the Czars

INTERESTING READING FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

Harper, T. A. and Winifred. Siberian Gold (Young Modern Series). Doubleday, Doran & Company, Inc., Garden City, New York, 1927.

UNIT VIII

CHINA: A CHANGING AGRICULTURAL CIVILIZATION

We must leave European countries and turn to the study of Asia — to a civilization very different from the ones we have been discussing. We are turning to that region of the earth in which more than half of the people of the world are living — the region near China and Japan (see figure 17, Chapter II).

We shall see now how people live where there are few engines, machines, and factories; trains, steamboats, and automobiles; telegraphs, telephones, and radio. We shall inquire how it happens that nearly 1,000,000,000 people are living in the modern world with few of these things. How do they get food, make clothing, and provide shelter without them? How do they work without them?

Already in this book (Chapter V) we have studied about people who live in southern Asia — in India — and who form a third of Asia's great population. Most of them live a simple farming life. Now we shall consider the other two largest groups, the Chinese and the Japanese.

To understand life in Europe, we considered four important factors. In studying China in the following unit and Japan in the next unit after that we shall seek answers to the same four questions that we asked about Great Britain, France, Germany, and Russia:

1. *Are they located in a stimulating, productive climate?*
2. *Have they large amounts of fertile land and sufficient supplies of coal, oil, and water power and of iron ore and other raw materials?*
3. *Have they large numbers of people ready to work?*
4. *Have they studied their problems in a scientific way, inventing engines, machines, and efficient means of transportation and communication and ways of doing business?*

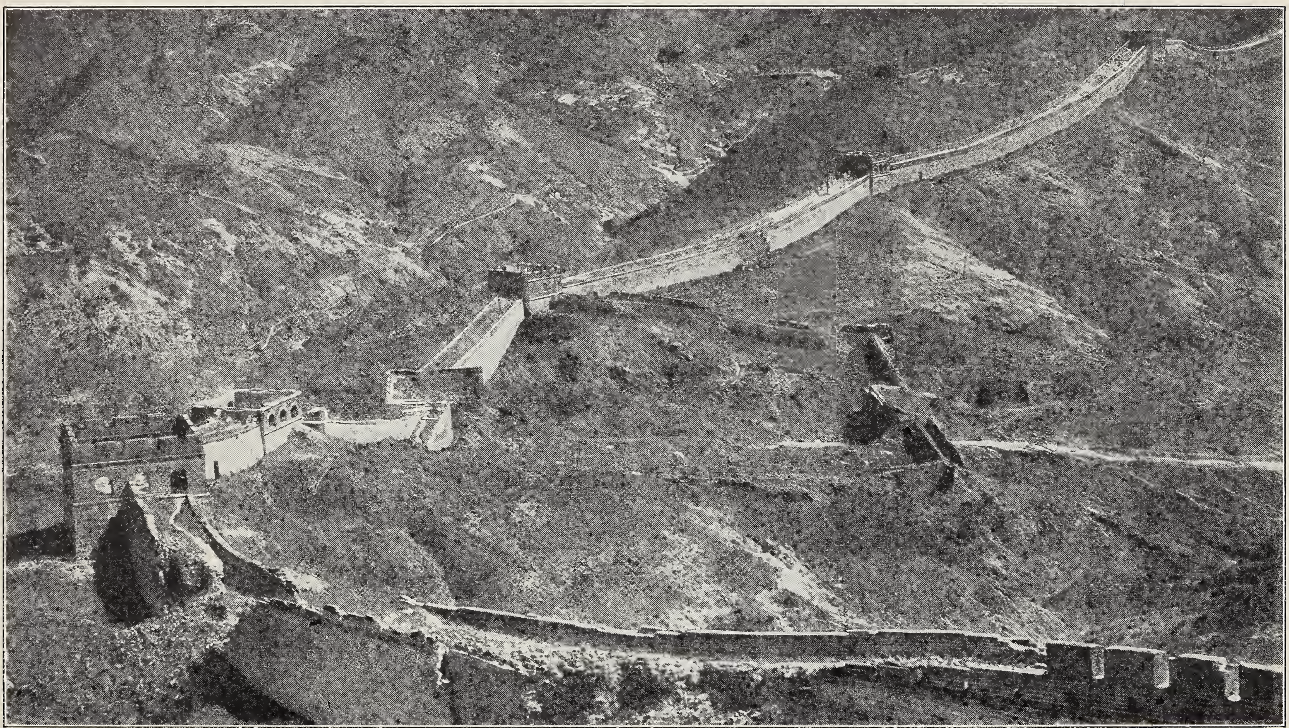


FIG. 186. A part of the Great Wall, which was begun by Emperor Shih Huang-ti

CHAPTER XX

THE UNCHANGING CHINESE: A PEOPLE WITH THOUSANDS OF YEARS OF HISTORY

What is your name?

Suppose it is James Grant or Helen Grant. If you lived in China, your name would be Grant James or Grant Helen. Last names come first; and last names are very important, for they are *family* names. In China "family" means a great deal.

FAMILY LIFE IN CHINA

In America three or four persons usually make a family. To-day an American family of eight or ten is considered not only *large* but *enormous*. Mother and father, not more than two or three children, and occasionally a grandparent make up the average American family.

In a Chinese family there are usually many brothers and sisters. But it does not consist of mother and father and children alone. When a Chinese son marries, he does not leave home and start housekeeping for himself. Instead, he brings his wife to live in the home of his father. Thus in the same home there sometimes are great-grandparents, grandparents, parents, and children. Uncles, aunts, cousins, — in fact, all the people who have the same family name and who are related by blood ties, — belong together.

The father who descends from the main branch of the family is head of all the family. He manages whatever land or other property the family owns. Money made by any member of the family is turned over to the family fund, which the family spends or distributes.

The older a person grows, the more important he becomes in the Chinese family. The devotion of sons to their parents or grandparents is very great.

The family includes not only the living members but all the dead members as well. When a Chinese father or mother dies, the name is written on a tablet. The dead one is remembered with respect and reverence by those still living. Each clan, consisting of several families of the same surname, has a great hall erected in memory of its ancestors. People do not live in these halls, but at certain times the living members of the clan, so far as possible, come together at the family shrines.

The Chinese do not forget their ancestors. Hundreds of years after they are dead some of them are remembered and spoken of, and their wise sayings are passed down from children to children. On a certain day every year the members of a Chinese family go to the hills above the village to put food and incense on the graves of their ancestors. They carry roast pigs to the burial grounds, present them to the ancestors, and have a feast in their honor. Thus do they remember the existence of their famous forefathers, who may have lived hundreds or even thousands of years ago.

Here in America people are proud when they can say that their ancestors lived in America as far back as the Revolutionary War, 165 years ago. And they are especially proud if they can say that their forefathers came at the time of the arrival of the *Mayflower* in 1620. But such people would be mere beginners in Chinese family history. Some Chinese families can tell you the names of each of their ancestors back for 1000, even 2000 years.

Chinese History Is Thousands of Years Old

The beginning of China lies far, far back — much further than the beginning of any other nation in the world today. Of course, there were nations in western Asia, Europe, and northern Africa when China was fairly young. Egypt, Assyria, Babylonia, Greece, and Rome each played its brilliant part. They grew large and prosperous for a time but then they either disappeared or became unimportant. It is only through the ideas, inventions, and great works of art which they passed on to other peoples that they are remembered.

How different has been the situation in China! The Chinese civilization is about as old as that of Egypt, but it has never ended. The Chinese can show an unbroken written record of history, extending all the way from the period of the first ruling family, more than 4000 years ago, to the present day.

Can any European country boast of such a long history? Look at the time line of figure 187. Compare the length of life of modern European nations with that of China. Notice that the time line showing Chinese recorded history is just about evenly divided at the point marked "birth of Christ." Modern European nations do not go back even so far as that in their history.

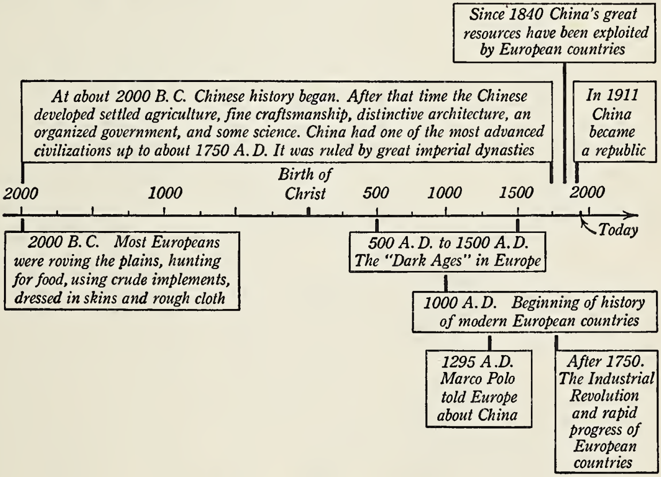

Since 1840 China's great resources have been exploited by European countries
At about 2000 B.C. Chinese history began. After that time the Chinese developed settled agriculture, fine craftsmanship, distinctive architecture, an organized government, and some science. China had one of the most advanced civilizations up to about 1750 A.D. It was ruled by great imperial dynasties
In 1911 China became a republic
2000
1000
Birth of Christ
500
1000
1500
2000
Today
2000 B.C. Most Europeans were roving the plains, hunting for food, using crude implements, dressed in skins and rough cloth
500 A.D. to 1500 A.D. The "Dark Ages" in Europe
1000 A.D. Beginning of history of modern European countries
1295 A.D. Marco Polo told Europe about China
After 1750. The Industrial Revolution and rapid progress of European countries

FIG. 187. Find the center of the time line. The birth of Christ marks the division of time as it is recorded in the Western world. Note China's long, unbroken history from 2000 B.C.

More remarkable than the length of time covered by Chinese history is the unchanging nature of the people. Although styles have changed, rulers have come and gone, and millions of people have lived and died, we find most of the Chinese still working and thinking and acting as their ancestors had worked and thought and acted in the first years of Chinese history. They govern their conduct today by wisdom that was slowly accumulated in the thousand and more years before Greek or Roman civilization even came into existence.

Families of China Developed an Empire of Their Own

Before history was written even in China, people had settled in the rich river valleys of the Hwang and the Yangtze rivers. They were cultivating their fields much as were the people living along the Tigris and the Nile. These two river-valley civilizations — the Hwang to the north and the Yangtze to the south — grew up and finally were united.

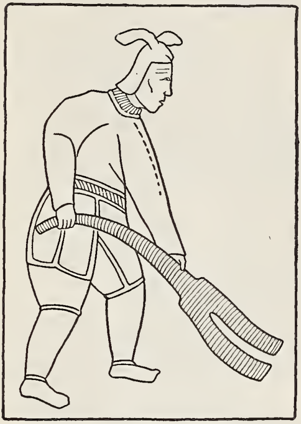


Fig. 188. Shan-nung, who reigned after Fu-hi, and who is supposed to have taught the people how to make agricultural implements. (Redrawn from an old print)

The kings of these early civilizations lived so long ago that they are now but mythical people. There was Fu-hi, who, the Chinese think, lived as long ago as 2900 B.C. The Chinese believe that he invented their musical instruments. He is given the credit for discovering that the horse, dog, ox, sheep, pig, and fowl could be tamed and raised and used to supply food and to help the people do their work. It is also believed that he taught people how to catch fish in nets and so secured another source of food.

After Fu-hi another wise and revered emperor taught the people how to plant and reap, how to use herbs for medicine, and how to make wooden plows.

Whether or not these rulers really lived no one is certain. At any rate it is known definitely that more than four thousand years ago the Chinese had tamed animals. In China man provided himself with food by raising animals rather than by hunting them in the forests. He also trained these animals to work for him. Furthermore, he knew how to cultivate crops and even to use plows. In other words, it is certain that in the China of that day people *were living a settled, agricultural life.*

Hwang-ti, the Yellow Sovereign, lived nearer the days of written history. He was kept fairly busy driving savage enemy tribes away from the fertile fields of his people. But in spite of that he taught the Chinese many new and better ways of doing things. Under his rule they made roads, and carts to pull along the roads; they built ships to sail on the broad rivers. To encourage trade Hwang-ti had copper money made and established a fixed standard of weights and measures. He introduced the calendar, which made the planting and cultivation of crops more regular and dependable. Some of his officials discovered many interesting facts about the stars, and one astronomer is said to have invented the compass.

Hwang-ti's wife taught the people how to raise silkworms and to make silk thread. People learned how to weave cloth from the silk and to make their clothes from it.

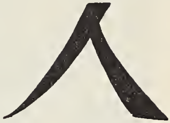


FIG. 189. Chinese written records were already ancient before Europeans had learned any way of keeping them at all. This Chinese sign stands for the word "man"

Most important of all, Hwang-ti's officials worked out a system of writing that made it possible to keep a real record of events. From then on historians were appointed regularly to keep accounts of happenings, the good deeds and the bad deeds of the emperors, and the ordinary events of the year. Some of these earliest records were lost, and there remain only the records written from memory later. Even so, records of Chinese events go back almost 4000 years.

IN CHINA THE EMPEROR WAS EXPECTED TO RULE WISELY AND TO TAKE CARE OF HIS PEOPLE

The Emperor Yao, a great ruler, came to the throne in 2356 B.C.

It is written that he said: "Are the people cold? Then it is I who am the cause. Are they hungry? It is my fault. Do they commit any crime? I ought to consider myself the culprit."

This was the way emperors were supposed to behave — as fathers and leaders of their people. An example of the way in which emperors came to the throne will show you how the people really expected their emperors or leaders to take care of them.

During Yao's reign the country was swept by a terrible flood. The waters of the Hwang rose higher and higher and destroyed people's crops and their homes. The people were suffering. An engineer was appointed to stop the flood. He built walls; but the

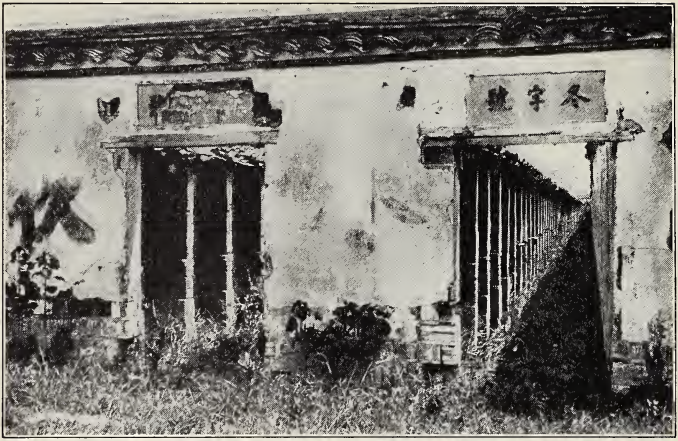


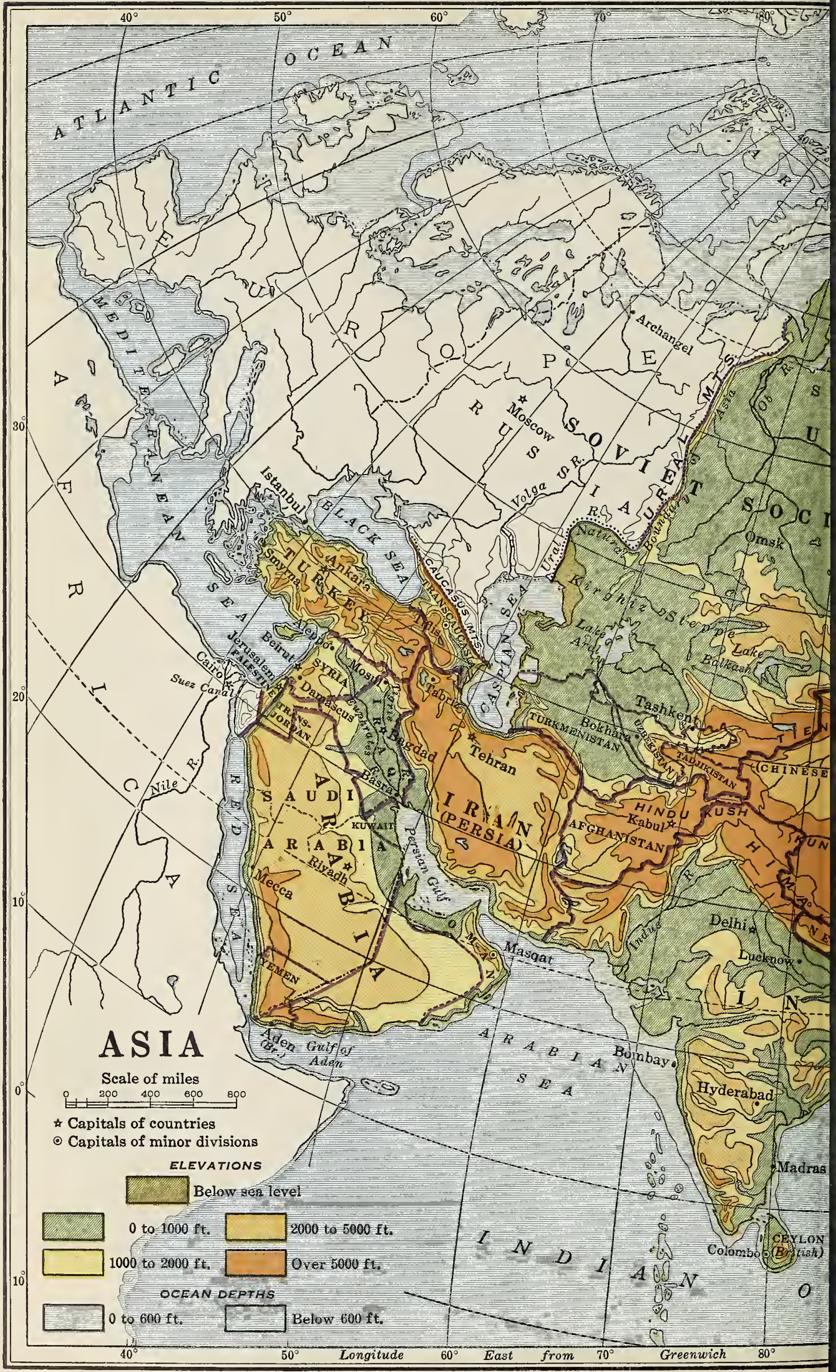
Fig. 190. Thousands of small rooms like those seen in the picture were used in ancient China by students taking the examinations

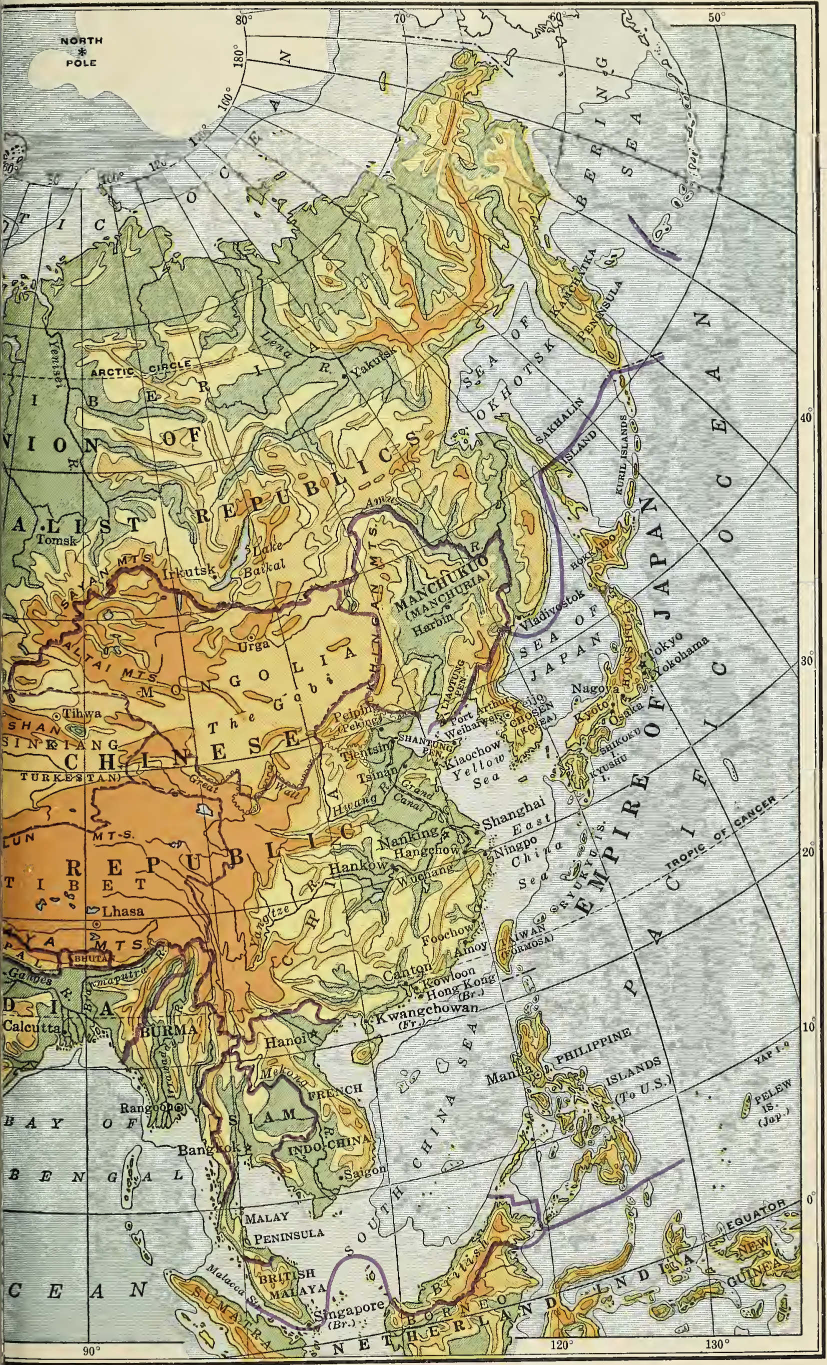
walls were washed away, and the flood was worse than before. The engineer was promptly put to death for his failure! His son, Yu, took up the work. He did not build high walls to hold in the waters. Instead, after eight years, he succeeded in deepening the channels of the rivers to carry the water faster out to sea. The Chinese have long said, "We should have been fish but for Yu."

Yu was then made ruler, because he had saved the people from the terrible floods.

Citizens in China Were Respected and Admired According to What They Did for the Community

The social position of citizens in China depended on several things. If one were inquiring about a Chinese gentleman, one would probably ask first, "Of what family is he a member?" If he belonged to a good and ancient family, that would mean a great deal. Next, one might ask, "What is his work?" What a person *does* is very important in China. If a man is thought to do a great deal for the community, he is an esteemed citizen. Occupations are ranked according to their value to the community. As you read on, try to compare the Chinese standards with our own.


ASIA
Scale of miles
0 200 400 600 800
★ Capitals of countries
⊙ Capitals of minor divisions
ELEVATIONS
Below sea level
0 to 1000 ft.
1000 to 2000 ft.
2000 to 5000 ft.
Over 5000 ft.
OCEAN DEPTHS
0 to 600 ft.
Below 600 ft.
40°
50°
60°
70°
80°
30°
20°
10°
0°
10°
Longitude East from Greenwich
ATLANTIC OCEAN
EUROPE
RUSSIA
SOVIET
MEDITERRANEAN SEA
AFRICA
Archangel
Moscow
Volga R.
URAL MTS.
Ural R.
Asia
Natural Boundary of Europe
Istanbul
BLACK SEA
CAUCASUS MTS.
TRANSCAUCASIA
Tiflis
CASPIAN SEA
TURKEY
Ankara
Smyrna
Aleppo
Beirut
SYRIA
Damascus
Mosul
Jerusalem
PALESTINE
Cairo
Suez Canal
TRANS-JORDAN
IRAQ
Euphrates R.
Tigris R.
Bagdad
Basra
KUWAIT
SAUDI ARABIA
ARABIA
Riyadh
Mecca
YEMEN
Aden (Br.)
Gulf of Aden
RED SEA
Nile R.
Persian Gulf
OMAN
Masqat
Tabriz
Tehran
IRAN (PERSIA)
TURKMENISTAN
Bokhara
UZBEKISTAN
TADJIKISTAN
Tashkent
AFGHANISTAN
Kabul
HINDU KUSH
Lake Aral
Kirghiz Steppe
Lake Balkash
Omsk
Ob R.
SOC
TIEN
(CHINESE
KUN
HIMA
NE
Indus R.
Delhi
Lucknow
IN
Bombay
Hyderabad
Madras
Colombo
CEYLON (British)
ARABIAN SEA
INDIAN O


NORTH POLE
ARCTIC OCEAN
BERING SEA
SEA OF OKHOTSK
KAMCHATKA PENINSULA
SAKHALIN ISLAND
KURIL ISLANDS
UNION OF SOCIALIST SOVIET REPUBLICS
SIBERIA
ARCTIC CIRCLE
Yenisei R.
Lena R.
Yakutsk
Tomsk
Irkutsk
Lake Baikal
SAYAN MTS.
ALTAI MTS.
Amur R.
KHINGAN MTS.
MANCHUKUO (MANCHURIA)
Harbin
Vladivostok
MONGOLIA
Urga
The Gobi
CHINESE REPUBLIC
Tihwa
SINKIANG (CHINESE TURKESTAN)
Great Wall
TIBET
Lhasa
KUN LUN MTS.
HIMALAYA MTS.
BHUTAN
Ganges
Brahmaputra R.
INDIA
Calcutta
BURMA
Irrawaddy R.
Rangoon
BAY OF BENGAL
INDIAN OCEAN
Peiping (Peking)
Tientsin
Tsinan
Hwang R.
Grand Canal
SHANTUNG PEN.
LIAOTUNG PEN.
Port Arthur
Weihaiwei
Kiaochow
Yellow Sea
Keijo
CHOSEN (KOREA)
SEA OF JAPAN
EMPIRE OF JAPAN
HOKKAIDO
HONSHU
Tokyo
Yokohama
Nagoya
Kyoto
Osaka
SHIKOKU I.
KYUSHU I.
RYUKYU IS.
Shanghai
Nanking
Hangchow
Ningpo
Hankow
Wuchang
Yangtze R.
East China Sea
Foochow
Amoy
TAIWAN (FORMOSA)
Canton
Kowloon
Hong Kong (Br.)
Kwangchowan (Fr.)
TROPIC OF CANCER
Hanoi
Mekong R.
FRENCH INDO-CHINA
SIAM
Bangkok
Saigon
SOUTH CHINA SEA
Manila
PHILIPPINE ISLANDS (To U.S.)
YAP I.
PELEW IS. (Jap.)
PACIFIC OCEAN
MALAY PENINSULA
BRITISH MALAYA
Singapore (Br.)
Malacca St.
SUMATRA
BORNEO
British
NETHERLAND INDIA
NEW GUINEA
EQUATOR
80°
70°
60°
50°
180°
160°
140°
120°
100°
40°
30°
20°
10°
0°
90°
120°
130°

The scholar or student occupied the highest place in China, because he was thought to be of most service to the community. Tests in scholarship had to be passed before people could take government positions. This meant that scholars alone controlled the government and the high offices of China. They were expected to lead the people wisely and to show them how to live happily together in their communities.

To pass the examinations the students had to be able to write poetry and to repeat from memory the Confucian classics. They had to know the history of their country and the best literature of all periods. In addition, they had to be able to write what they knew in beautiful handwriting, for handwriting has always been regarded as an art in itself in China.

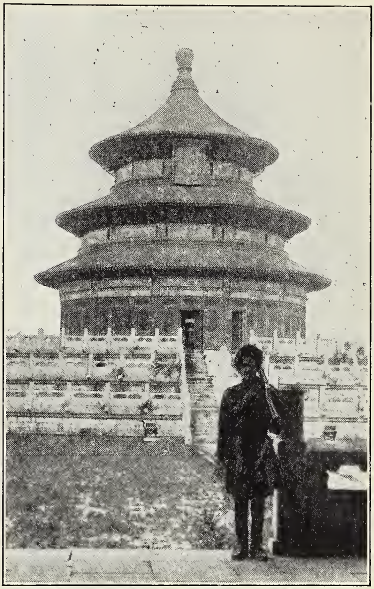


FIG. 191. Within this building, the Temple of Heaven at Peiping (Peking), the Chinese emperors prayed at a special altar in time of drought or famine

Next in rank to the scholar came the farmer who provided food and life for the people. Each of the emperors appreciated the importance of farming and encouraged it. To show this, he himself went through the ceremony of plowing a furrow of earth every year. At the beginnings of the four seasons, ceremonies were held at the Temple of Agriculture in the capital city. The platform of this temple was built of five kinds and colors of earth from the five different regions of China to show that all China joined in reverence for the earth.

After the scholars and farmers came the craftsmen — the builders, who made shelter; the weavers, who made clothes; and the ivory-carvers, who made beautiful ornaments. Merchants came fourth. We, who live in industrial countries, know that without trade we could not live. We think of banks and stores, railroads, steamships, and cities as playing a necessary part in our very lives. In China people did not think trade was so important. To be sure, there was some trade, but very much less than was common in Europe and America.

Following the merchant class came the servants and some unskilled laborers, who were classed together.

The soldier came last. He was the lowest of the low. This man, "who lived by violence," was respected the least.

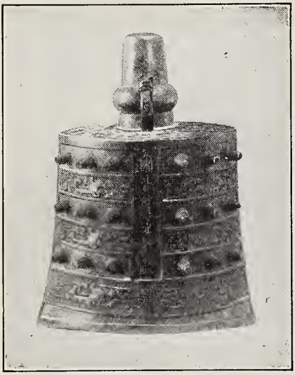


FIG. 192. A sample of ancient Chinese craftsmanship in bronze. This bell is said to have been made before 1100 B.C. (Courtesy of the American Museum of Natural History)

What do you think of the Chinese way of rating people's importance? Do you know of any other country which rates people this way? Can you think of another country where scholars come first? Does the merchant come next to last in the United States? Did the fighter come last in Prussia or in Rome? Do you remember the Norse traders who built up Russia? They had few scholars, and they made their farmers slaves. Would they have put fighting last?

From the very first there were many things in the Chinese civilization which seem to have been wholly different from the civilization that grew up in the countries of Europe.

LONG AGO IN THIS LAND OF HEAVENLY EMPERORS THE PEOPLE DEVELOPED "DEMOCRACY"

You have learned that until 1861 two thirds of all the Russian people were treated as slaves and that several million black people in the United States were slaves. Slavery had existed in most countries of the world at some time.

But in China there was very little slavery! It was the only one of the great empires of ancient times that did not depend upon slavery for the doing of daily tasks. In China *a "noble" was* *expected to be really noble.* He would not undertake to enslave his poorer neighbors and to seize power for himself. Small groups did not rule the country — the people did. The people had power even over the emperor.

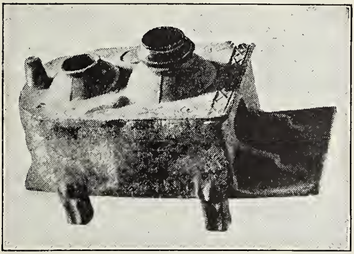


Fig. 193. The Chinese had learned to build stoves and to cook in bronze vessels like these before 12 A.D. (Courtesy of the American Museum of Natural History)

At first the emperor chose his successor. Later the rule was passed on from father to son. One family of Chinese emperors, the Chou (pronounced "chow") family, ruled over China for nearly 900 years (1122–249 B.C.). It was so long ago that it is hard to realize what a long period of time was covered by that rule. China was not living in peace and quiet all those years, for various regions were at war again and again. Indeed, it seemed as if there were little peace. But throughout this long period, in spite of fighting and warfare, Chinese civilization *was developing steadily* under the leadership of a great family.

Work of Chinese craftsmen of 2000 years ago

Two thousand years ago a certain province of China, called Chekiang, was a land in which every man made his own farming implements. In still another province, Chihli, every warrior knew how to make his own metal helmet, breastplate, and weapons. This was likewise true of other provinces. In such places there was little work for special craftsmen.

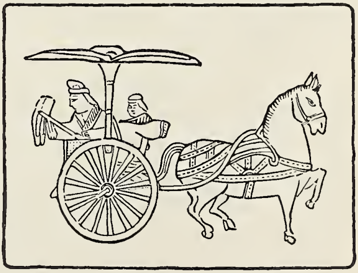


Fig. 194. An ancient Chinese chariot. (Redrawn from an old print)

There were some craftsmen in China, however. They could make swords and belts, bells and stoves out of metals. They could mold clay into bowls and other utensils for the household. They could even build carriages and boats.

Confucius, a great scholar

In 551 B.C., during the reign of one of the emperors of the Chou family, a great scholar was born. During his life he wrote down the old wise Chinese sayings and thoughts, so that people might remember them easily. His name was Confucius.

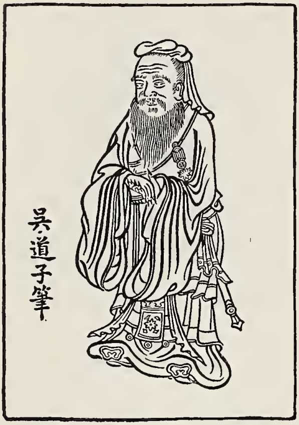


FIG. 195. Confucius. (Redrawn from an old print)

Confucius noticed things that other people had passed by and made clear many things which had not been thought out carefully before. He was so wise that he was made prime minister of his native state. Later, however, he lost the favor of the ruler and went into exile. Then he traveled, seeking an opportunity to become a state official and carry out his ideals. He never found that opportunity, however. At last he returned, not to manage affairs of state, but to live quietly as a writer through his last few years, and still to teach those who would listen.

Confucius spent much of his time teaching young men. Students came to him to learn a little of his wisdom. Many of his teachings do not seem strange today, but to many medieval Europeans they would have been very strange indeed.

Medieval Europeans found life so hard and so unhappy that most of them eagerly turned their thoughts to a dream of heaven. There they believed they could live in safety and have no work to do after they were dead. Confucius did not talk to his people about a heaven where people could go after they were dead. He did not talk about what will happen *after* death at all. He said, "While you do not know life, what can you know about death?"

He taught them that the important thing for each person was to try to live happily with the people about him. He was not to think only of *his own* happiness and what *he* wanted to do, apart from everyone else. But rather, he was to think of the happiness of *his family* and of the *community in which he lived.*

The sayings of Confucius were written and copied again and again. People who could not read learned his wise sayings by heart. Even today, over 2000 years after his death, there are few Chinese who do not know some of them.

These writings tell much about Chinese civilization during the long Chou dynasty; for Confucius did not think up all the ideas he put in writing, but often merely expressed old ideas in more beautiful language.

So lasting have been the teachings of this man that even today one can see in many Chinese cities red temples erected in his honor. The temple is always kept in good condition. There are no images or pictures in it — just a simple wooden tablet with the characters "Confucius" carved on it.

Occasionally rulers tried to change the life of China

As far back as 221 B.C. there came a ruler who tried, though unsuccessfully, to change ways of living in China. He wished to be known as Shih Huang-ti, which means the "First Emperor." He was not like the emperors who had ruled before him, and he did not care to be reminded of them.

He had no reverence for the books of history or for literature, believing that they kept the minds of the people filled with old ideas and old ways of doing things. He said that it was time for the Chinese people to wipe out the past and start anew. So he ordered all books to be burned, except those which were about farming or medicine. Some books, however, were hidden by scholars and saved. This great loss was unfortunate for us too, who would like to know more about ancient China.

But Shih Huang-ti had a reason for destroying the old things. He wanted China to wake up, to change from her old ways. Chinese scholars and Chinese people, he said, were always looking backward and imitating the past. He wanted them to stop thinking the ideas of people long since dead and to express new ideas for themselves. He was interested in building and transportation and trade — things which are of such great interest to our people today. He planned and directed great engineering projects by which he pierced mountains, leveled hills, bridged rivers, and built many roads.

The Great Wall stands today as proof of Shi Huang-ti's ability

During this time all the early river civilizations, including the Chinese, were being annoyed by barbarians. These tribes were in the habit of swooping down from the hills to plunder or to conquer. They were Mongols, very much like the half-wild people who overran Europe at the beginning of the Middle Ages.

Now, after Shih Huang-ti had conquered and united all the provinces in China, he set about building a great wall. This wall extended for 1500 miles along the hills and valleys far from the farm districts of the Hwang. It separated the Mongolian plains from China.

It was wide enough in some places so that four horses could be driven abreast along its top. At short intervals there were watch towers, where soldiers were stationed. At longer intervals there were small forts, where whole companies of soldiers could be stationed on duty.

The picture of figure 186 shows a part of the wall in the desolate hills of China. It was no easy task to build this wall. Yet it was not made under the lash of slave-drivers, as were the pyramids. Think of the planning, the overseeing, and the number of laborers it required! Think of getting workers and materials together in such a place and of getting food to them!

Shih Huang-ti must have been a very great emperor indeed, but he did not succeed in shaking the Chinese people out of their old ways and customs.

For many centuries the Chinese people slowly developed their civilization far from the changing West

In the days when our ancestors in Europe were still wandering tribes, the Chinese were building up a settled civilization, writing poetry, painting pictures, building temples, and creating other works of art. They were making inventions and discoveries which did not occur to Europeans until many centuries later. From the time of the building of the Great Wall (approximately 214 B.C.) to the time of the Middle Ages in Europe, China was free from the raids of the warlike barbarian tribes beyond the wall and free to continue her old ways of doing things.

Then, after more than 1000 years of effort, the barbarians of northern Asia led by Genghis Khan did break through (about 1200). However, the Chinese civilization was so well established that instead of trying to change the Chinese ways of living the barbarians soon took them over. Kublai Khan,[1] grandson of the great leader of the tribes that came over from Mongolia into China, moved his court to Peking (the Chinese city today called Peiping) and ruled there for many years. So many of the ministers and governors whom he appointed were Chinese that today people almost forget that he himself was not Chinese.

Toward modern times a Chinese family (the Mings) took the control of China out of the hands of the descendants of Genghis Khan. They lost the great territory which the Khan had controlled, clear across the Asiatic steppes into Europe, but the old Chinese provinces of Tibet, Mongolia, and Manchuria remained a part of the Chinese Empire. The Mings ruled until about 1643. During this time European traders came in increasing numbers to China.

In 1644 the Manchus, another northern tribe, conquered China and ruled it until 1911. Nevertheless Chinese customs and ways of living went on much as they always had, for the Manchus too became "Chinese."

Emperors came and went, barbarians appeared and were driven back, but the Chinese people continued to live on in much the same old ways. The population increased, and the Empire grew and became more and more unified.

Throughout all these centuries China thought little about the West. The Chinese regarded the Europeans as barbarians, much as they had regarded the Mongols. Europe was far away, a place beyond the limits of Oriental civilization — a world apart. Why should China think of it at all?

We shall see in another chapter how in the 1800's strangers forced their way into China and made her, in spite of herself, take on strange customs and foreign ways.

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[1] *The Travels of Marco Polo* gives the best description we have of China under the Mongol khans.

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CHAPTER XXI

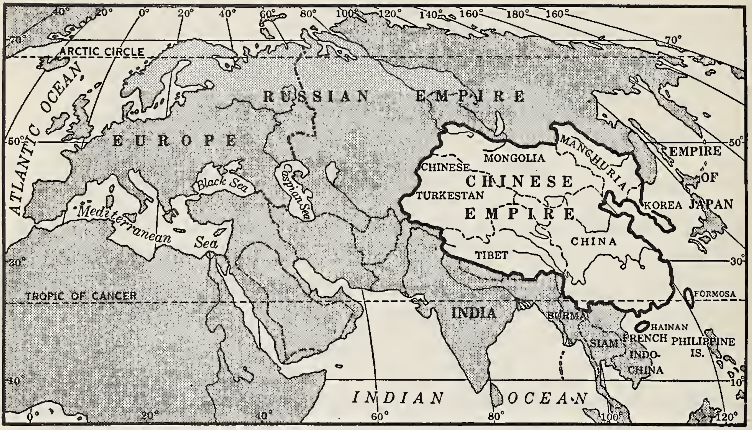
HOW OLD CHINA LIVES AND WORKS

China: What Does It Include?

It is important to know what is included in "China." The khans who conquered China expanded the old boundaries to include an enormous kingdom. This kingdom included a much greater territory than is shown on the map. It even took in part of Europe! When the rule of the khans came to an end, China dwindled to about her old size, but four territories that had paid tribute to the Grand Khan at Peking remained with China. These were Manchuria, Mongolia, Chinese Turkestan (now called Sinkiang), and Tibet — the large provinces lying to the west and north. Until recent years they were ruled by representatives of the government at Peking.

Three of these four outlying areas, Mongolia, Sinkiang, and Tibet, are inhabited today by Chinese people, and also by "natives" — mixed descendants of Chinese and other peoples. Their customs, dress, and ways of living are more nearly like those of the Chinese than of any other people. When we think of China *as a whole*, then, we include all these territories; that is, both China proper and these three outlying territories. In making comparisons of China with the other parts of the world as to size, population, and the like, we shall include all this territory under the term "China."

The fourth province, Manchuria, was controlled by China until 1931. In that year Japan invaded and seized the province and set up a separate government under its control. This territory is now known as Manchukuo. Since this province is now under the complete control of Japan, we shall not include it when we discuss the area or population of China. Nevertheless, out of a total population of 30,000,000 people there, more than 90 per cent are Chinese.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EUROPE
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MANCHURIA
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CHINESE TURKESTAN
CHINESE EMPIRE
EMPIRE OF JAPAN
KOREA
Black Sea
Caspian Sea
Mediterranean Sea
CHINA
TIBET
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SIAM
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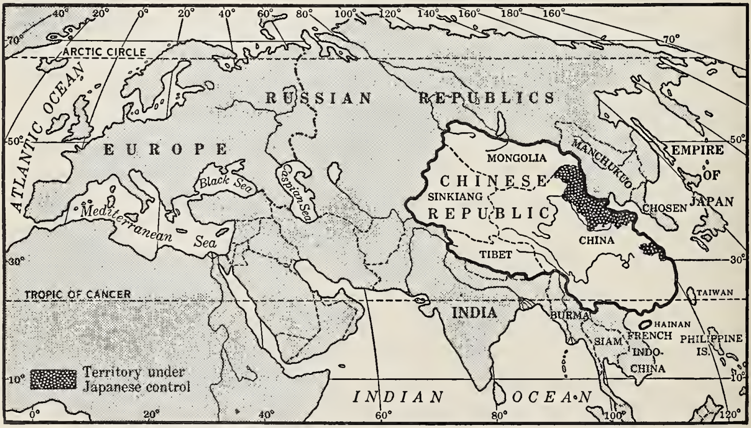
Fig. 196. The lands that once were China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SINKIANG
EMPIRE OF JAPAN
CHOSEN
Black Sea
Caspian Sea
Mediterranean Sea
CHINA
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TAIWAN
INDIA
BURMA
HAINAN
SIAM
FRENCH INDO-CHINA
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▨ Territory under Japanese control
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Fig. 197. The territory that is China today

HOW LARGE IS CHINA? HOW MANY PEOPLE ARE LIVING THERE?

No one knows the exact population of China. No very accurate census has ever been taken, and the estimates of the number of people living in China vary a great deal. Some say the number is as low as 300,000,000; some say it is as high as 440,000,000. We can be sure of one thing: the number is very, very large—without doubt larger than 350,000,000. Many writers on China today use the number of 424,000,000 people; so we shall use it in our work.

Of course there are many other Chinese people besides those in China. In Indo-China and the Malay Peninsula Chinese are working as farmers or laborers or traders. In Singapore Chinese are the principal business people of the city. In the Philippines, in Hawaii, even in the United States, there are many Chinese.

It was estimated that in the year 1928 as many as 6,000,000 Chinese were living in countries outside the Chinese Empire.

The area of China is about one fourth larger than that of the United States. The population, however, is nearly three and a half times as large.

There is another thing we must take into account when we think of the population of China. Even if the 424,000,000 people were scattered evenly over the country, it would still be about three times as densely populated as the United States. But actually the 424,000,000 people live crowded together in one third of the area of China. It is as if all the people of the United States lived in a small area about the size of Texas and New Mexico. Imagine all the people in the United States crowded together in those two states. One investigator said recently that in the most crowded part of China 3800 people, 384 donkeys, and 384 pigs are living in one square mile!

Most of the people live in China proper

Figure 199 shows how thickly the regions of China are settled. This shows very clearly that people live together in greatest numbers on the southeastern coast and in the fertile valleys of the rivers. Why in those regions especially? There the climate is warm. Frequent rains moisten the soil. Rivers can be dammed

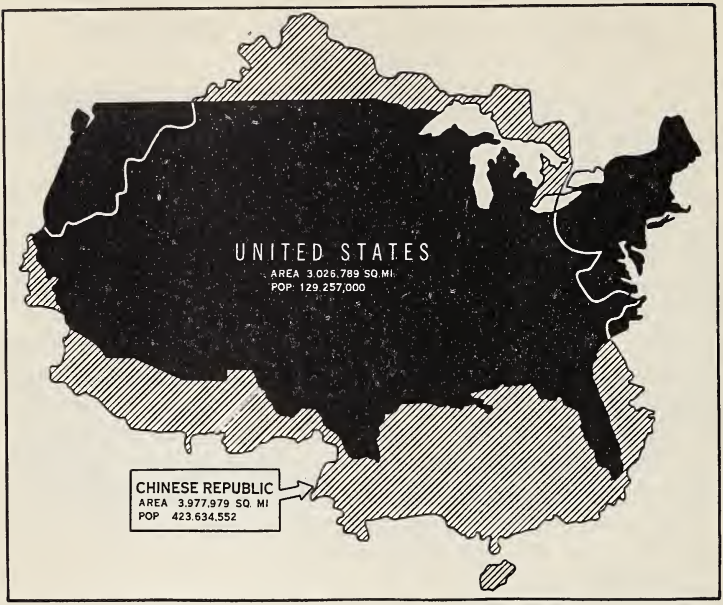


FIG. 198. China, which is only slightly larger than the United States, has more than three times as many people

to flood the rice fields in planting seasons. Transportation back and forth along the rivers and canals is very easy. Therefore these river regions are very inviting. In addition living is so much cheaper and easier there than in other regions that multitudes of Chinese make their homes on houseboats.

Notice the black spot on the map of figure 199. This is the region around the mouth of the Yangtze River. Here more than 700 people live on every square mile of land. Even in the higher, less fertile lands there is an average of 100 people to the square mile. Note that in only two of the provinces of China proper are there less than 100 people to the square mile, and these provinces are among those farthest from the coast.

In contrast to China proper, the population of Mongolia is very small. Mongolia averages about 2½ persons to the square mile. The Mongolians are a wandering people who live in tents and use the land — which is too poor for the cultivation of crops — for grazing herds of sheep, cattle, and ponies. Most of the Chinese people living in Mongolia are merchants who have shops in the villages. There they trade with the Mongol horsemen and with the Russians who have come into this territory from Siberia.

On the great plateau of Tibet also grazing is the chief occupation. In most parts it is too dry and too cold for farming, and it takes a good deal of ground to provide a living for each family. In the mountains of Tibet there are a great many wild animals; therefore hunting and fur-trading are the other two chief occupations there. But where hunting and grazing are the chief occupations of a people, you will find the population small. A great deal of land is necessary to provide even a bare living for herds and people.

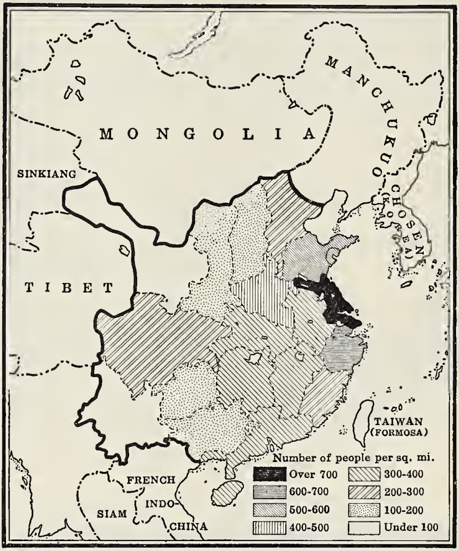

MONGOLIA
MANCHUKUO
CHOSEN (KOREA)
SINKIANG
TIBET
TAIWAN (FORMOSA)
FRENCH INDO-CHINA
SIAM
Number of people per sq. mi.
Over 700
600-700
500-600
400-500
300-400
200-300
100-200
Under 100

Fig. 199. China proper, like India, is a country of dense population. Do the same reasons which partly account for India's dense population also help to account for the density of China's population?

Why do so many Chinese live in the small river-valley areas? The Chinese, like other people, have to make a living, and they have settled in the places where this is possible. They have learned that it is easier to get a living in the midst of the crowds along the Yangtze than off by themselves in the hills. Why is this?

In the river valleys the climate, the soil, and the broad rivers make large crops possible. Then, too, the Chinese have learned to produce certain foods — rice especially — so abundantly that even the dense population can be fed mainly by growing this one food.

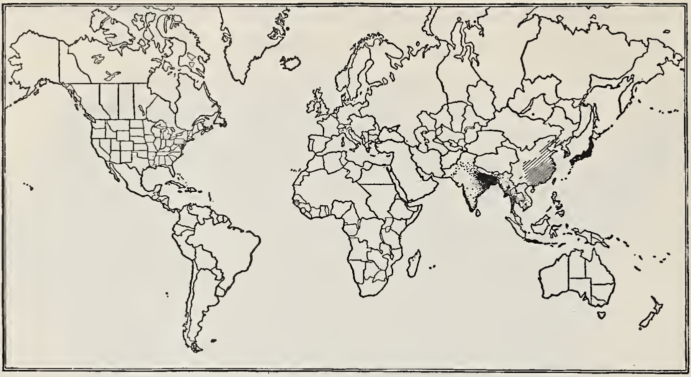


FIG. 200. Where the world's rice is grown. The importance of China as a rice-growing region is made clear by this map. The diagonal lines show where much rice is grown but where no estimates of the quantity have been made

CHINESE FARM PRODUCTS

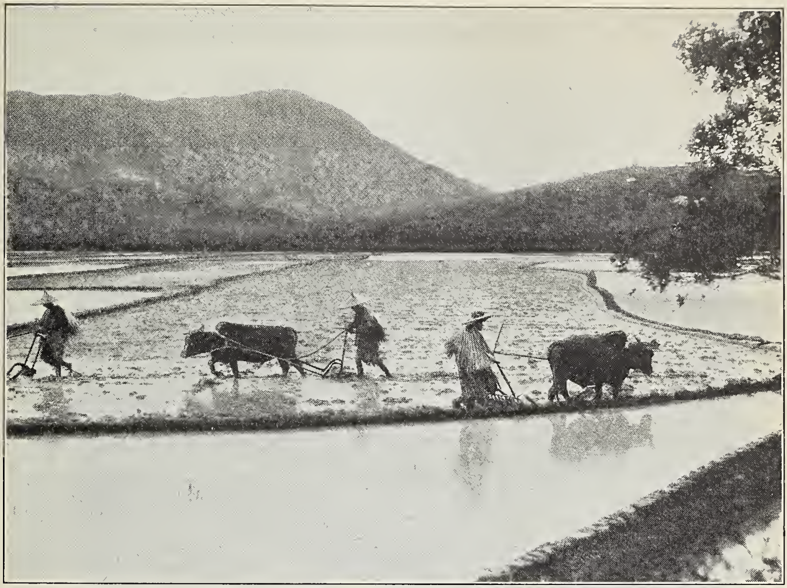
1. Many of the Chinese people spend their lives cultivating rice

Millions of people work in the rice fields of China. Rice-growing is hand farming. The fields must be prepared with the greatest care, and year in, year out, plot after plot must be planted, cultivated, and harvested. In the warmer parts of China from three to six crops of rice can be harvested a year.

The picture of figure 201 illustrates how embankments are made through the field to divide it into many smaller basins. These lie most of the time under water. First, the mud is plowed up by crude implements pulled by water buffaloes. Animals and human muscles do all the work of cultivating rice.

Then seed is planted in one small nursery bed in a corner of the field. Soon this bed is thick with rice plants. When the field is ready, these plants are taken out and set evenly all over the field.

The work of keeping the fields properly watered is important. Where the land is hilly and the fields are in terraces along the slopes, this is fairly easy. The water from streams flowing down the slope is led to the fields. It enters an upper terrace, and then trickles down from that field into a lower one through little openings in the embankments. The water must not be allowed to stand in pools; it must be kept moving.



Ewing Galloway

Fig. 201. Plowing a field in China before transplanting rice

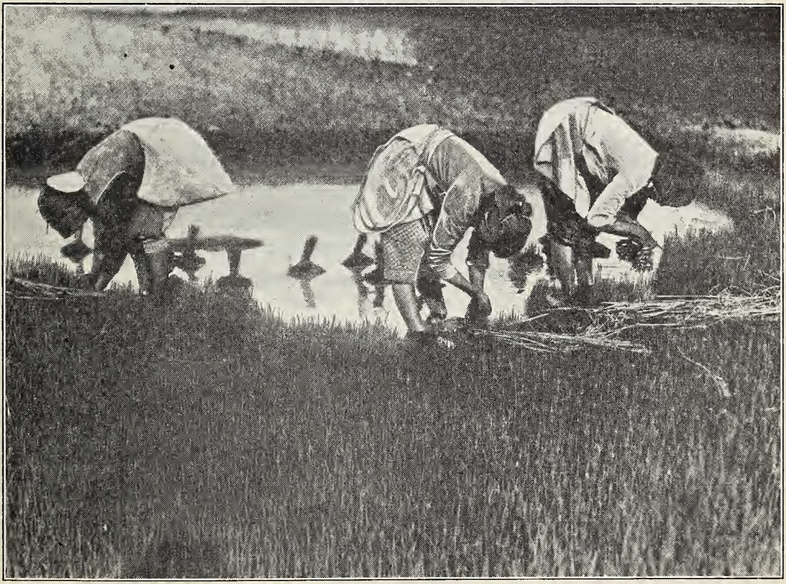


Fig. 202. Chinese women picking out the rice plants which are to be set in the newly plowed ground

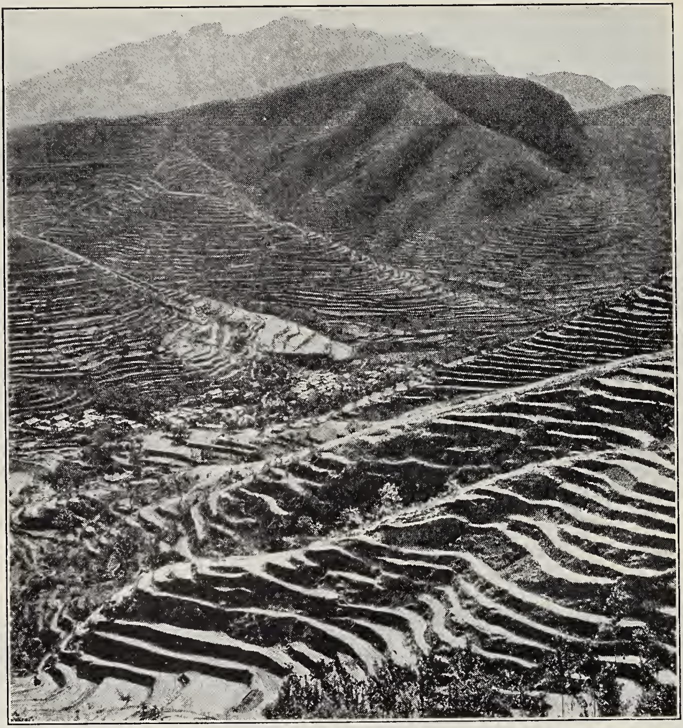


FIG. 203. The rice terraces of China. Even on the mountain sides the ground is cultivated, for there are many mouths to feed

In the river valleys the water is brought up to the field. A crude sort of paddle wheel splashes or scoops it up from the river into the channel. All day long, workmen tread the paddles, pushing the wheels around with their feet. The water is forced from the channel to an upper field, and then settles down through small openings in the embankments and flows slowly from plot to plot and back to the river.

When the rice begins to ripen the field is drained, and the farmer cuts his crop with a hand sickle. Then the rice stalks are collected, and the heads of the stalks are shaken off. One way to do this is to hit the stalks over the edge of a basket until the heads break from the stems and fall into the basket. The rice is then ready to be threshed; that is, it is time for the hard coverings, or husks, of the seeds to be removed.

In order to do this, the grain is carried in baskets to a hard plot of earth which all the villagers use as their threshing floor. Here women and children thresh the grain, rubbing the husks off the seeds by tramping on them with their bare feet. Sometimes farmers use a flail, a wooden instrument made especially to pound out the grain. Another way to do this work is to have a heavy roller drawn over the grain by an animal.

After threshing a fairly large amount the workers collect the rice in basket trays. These they bounce up and down, either blowing the loose husks off or letting the breeze carry them away. The chief food of the Chinese people is at last ready to be cooked and eaten. Have you ever seen anyone eating rice with chopsticks?

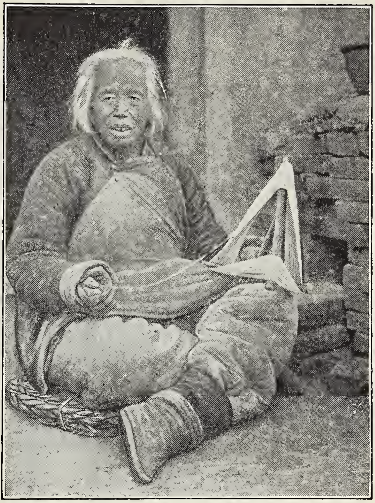


FIG. 204. After the silk has been spun into threads, it is wound ready for the market. This Chinese woman uses her spare time to earn a little money, as did the people on the manors of medieval England. This is a picture of "Old China." How can you tell?

How does this method compare with the cultivation, harvesting, and threshing of grains in the United States?

2. Silk is an important agricultural product of China

China and silk? Of course! Throughout ancient times and on through the Middle Ages, China made and sold most of the silk of the world. No European country knew the secret of silk-making. Many people thought the delicate threads were taken from trees. Finally, it is said, some monks who went to China hid some of the eggs of the silkworm moth in their hollow bamboo staffs, and thus they carried the secret back with them to Europe.

But although a few European countries have since learned how to produce silk, they have never excelled the Chinese. Silk-raising remains one of the leading occupations of China.

Suppose that you are a Chinese boy living in a village near Canton. In the spring you go with your father to the market where merchants have sheets of silkworm eggs on display. On each sheet is an even, gummy layer of thousands of eggs. Your father examines the sheets carefully and, after bargaining with the merchants, rolls up some sheets and starts home.

When you get home you make sure that the dark hatching-room is at the proper temperature. It must be warm; so you keep a little charcoal stove going constantly to keep the room at an even, warm temperature. You put each egg sheet in a clean basket and put the basket in the hatching-room.

In about two weeks the eggs will hatch. The tiny worms must eat, but they cannot chew whole mulberry leaves, which are the food for grown worms. So you gather tender mulberry leaves and cut them as fine as hairs and sprinkle them over the paper. The baby worms suck out the juice. Then you sweep the leaves up into a bunch with a goose feather.

There is no time to waste. You keep cutting up young leaves and sprinkling them over the growing worms every two hours all day and all night. After three days the worms "go to sleep" for 24 hours. Then they burst through their old skins and come out in new soft ones.

After this your troubles increase. The worms, now much larger, are so hungry that when you enter their hatchery you can hear them chewing busily at the mulberry leaves. Five different times the worm eats its fill, rests, bursts through its old skin, and becomes larger and hungrier. While it is resting a single draft of air, too much light, or a sudden noise may kill it. You must feed it enough, but not too much. Sometimes one worm sleeps while another eats. That increases the difficulty.

At last the worms are big enough to eat whole leaves. How their jaws click at their meals! It is like the patter of rain on a roof.

You keep removing left-overs from the trays, so that they will not spoil — the worms would not like that. You gather mulberry leaves (unless you buy these from a mulberry merchant) until

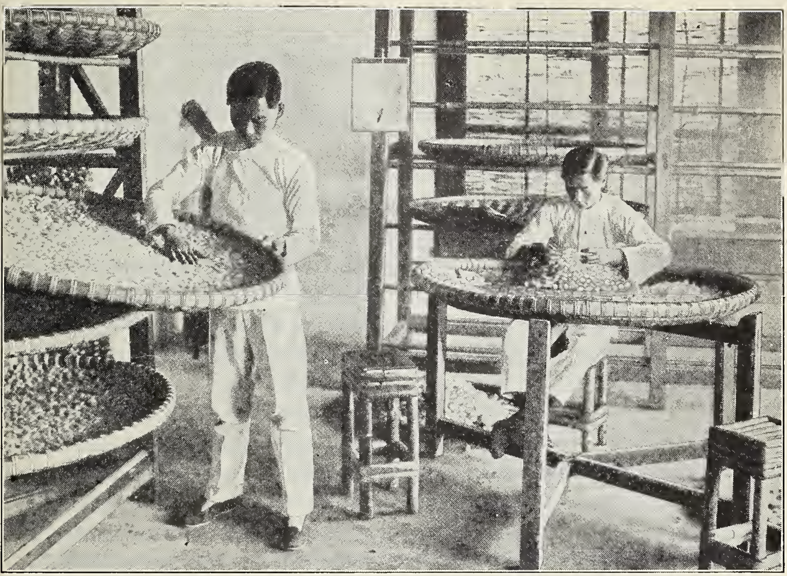


FIG. 205. Sorting cocoons in one of the new industrial plants in China. This is a picture of "New China." How can you tell?

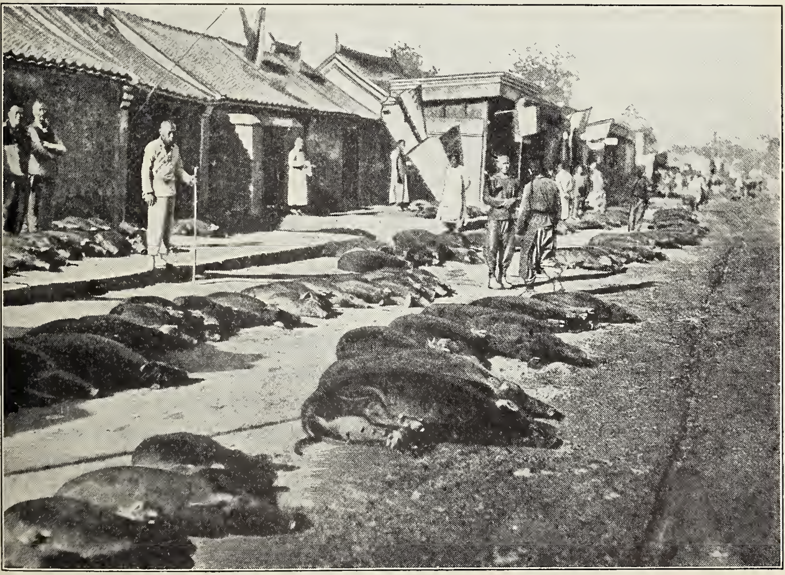


FIG. 206. A Chinese village scene. Tomorrow will be market day, and these pigs will be put into baskets and loaded in the carts that are to carry them away to the city. (Courtesy of Princeton-in-Peking)

you are too weary to stand up. If the leaves are wet from a rain, you must dry each leaf before cutting it up; the worms do not like wet leaves. Every sheetful of worms eats almost a ton and a half of mulberry leaves.

But your work has only begun when the worms have been fed. On the seventeenth day the pale worms, about as big as your little finger, are raising their swelling heads and looking aimlessly about. You lift out those that are "ripe" and put them on spinning racks or twigs. You take the racks or twigs into a shady outdoor place in the daytime and into the warm house at night. On them the worms spin their cocoons.

When the cocoons have been spun you drop them into boiling water. Your sister bobs them about with chopsticks, collecting the wisps of silk and unwinding the slender threads of three or four cocoons at once onto a spindle or spool. Or you may put the rack of worms over a smoking charcoal stove; this causes them to suffocate and die, and you then take the cocoons to market in bales or baskets. From there they are brought to a place where girls will pull the strong fine threads into strands and wind them on a reel, just as your sister would have done at home.

Each cocoon produces from 500 to 1000 yards of silk thread. How many mulberry leaves do you suppose you picked and dried and cut? How many times have you fed the charcoal stove and cleaned the worm trays to make that thread of raw silk?[1]

3. China raises many other products

While almost everything that China grows or mines or manufactures is done by means of muscle power, she still produces enough of many things which she needs. She is even able to export a share of some of them.

Tea also is very important to the Chinese themselves, though today it is not so important in Chinese trade as it was formerly.

In northern China not enough rice can be grown to furnish the people a living. Here millet, a kind of grass, is raised in great quantities and furnishes the everyday food just as rice does in the south. Here too — as well as in the neighboring Manchukuo —

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[1] Adapted from C. W. Howard's *Sericulture Industry of South China*, a publication of the College of Agriculture, Canton Christian College, Canton, China, January, 1923.

soy beans are raised in great quantities. This crop is produced not so much for food as for fertilizer. The beans are ground and pressed to make cakes of fertilizer (much of which is shipped to other countries). The oil which is squeezed from them furnishes the cooking oil of China. Peanuts also are raised.

China has become a large producer of cotton, ranking after the United States and India. Today cotton is China's fourth largest export. Moreover, China herself uses a great deal of cotton. The everyday clothes of most of the working people in China are now made of cotton dyed a vivid blue, which has come to be referred to as "Chinese blue."

The People of China Depend on Land and Weather

China is, indeed, one great farm. Perhaps it would be more correct to say that China is a big garden, for many of the agricultural products of this vast land are garden products. The farms themselves are very, very small. In the fertile valley of the Yangtze River the average farm is only two acres in size.

A steep hillside is not waste land in China but is used for rice fields, just as the sunny hills of Italy are used for growing grapes. Every inch of soil is used. This is clearly shown in the photograph of figure 203!

Hillsides where once forests probably grew thick and tall are now terraced rice plots. It is difficult to hold the soil on the steep slopes; so walls are carefully built and the earth nursed with tender care, terrace above terrace. When the season is severe and the rains are very heavy, the walls or embankments are sometimes washed away, and the fertile soil is all carried down into the valleys.

But the farmers must take their chances. Someone has said that farmers are the greatest gamblers in the world, for they must depend on the weather, over which they have no control. Each year the Chinese farmers plant their crops in hope, knowing that a flood may mean death by starvation. When these floods ruin the crops in the crowded districts, there are terrible famines. You may remember reading of the floods along the Mississippi River in our own country. Such floods occur from time to time in China.

In such terrible times of famine people eat roots and even dirt. Though only two or three small meals a week would keep them alive, they die of hunger.

Chinese Farmers, like the Peasants of Europe, Live in Villages

There are hundreds of thousands of villages all over China. But a Chinese village is not just a collection of neighbors living in one community. It is a group of families very closely bound together. Just as the oldest member of the family governs the family, so the old people of the village govern each little community. Each village has its own customs, its own laws, and its own government.

To most of the people of China the central government, which has generally been at Peiping or Nanking, means little. They pay their taxes to the central government, and beyond that they think little about it. Their thoughts do not wander far beyond their own rice fields.

Sai Shan — a typical village in the plains

We remember a visit to the small village of Sai Shan in southern China several years ago. We can see it now as it looked when we approached it across the hills.

It is a hot afternoon. The barren hills stand up against the flat checkerboard of tiny rice fields.

Before descending to the plain we stop at one of the resthouses beside the dirt road. We buy some sugar-cane sticks from a peddler and get a little hot water from the old man tending the charcoal fire. We make tea and look down over the valley.

Here and there villages dot the plain. They make darker spots in the fields, because they are green with bamboo groves and massive banyan trees. Only in the villages is soil left for the growing of trees.

Sai Shan lies between the road and the river.

The curves of a temple stand out a little above the gray-slate and thatched roofs of the ordinary houses. We are to visit at this temple, where the schoolteacher and his wife live and teach.

We shall be entertained in the hall of the forefathers, where there is the tablet to Confucius. We shall sleep in the guest room and sun ourselves in the open court, which forms the center of the hall.

After our cup of pale-yellow tea we descend to the valley and follow the granite road. In a clump of trees we see a couple of boys tending water buffaloes. Sai Shan lies off the road; we turn into a dirt path that runs along the embankment between rice fields. It is a hard path, long ago packed firm by the many feet that run along it. Pigs are squealing in the bamboo grove. We pass a fish pond, where ducks are swimming, and where a woman is pushing scum away from the bank so that she may wash her clothes. Here and there men are toiling in the rice fields.

The village is quiet. We see no one on the streets; we cannot see behind the "spirit" screens into the houses (each house has a screen just inside the door to keep the "devils" away). Dirty chow dogs run up and bark at us, and a few children watch us pass. But we see no one else. Everyone is away, working in the fields, for it is now time to harvest the rice and everybody is needed to help. We pass a shop — a miniature "general store," where meat, fish, children's clothes, jade trinkets, and canned milk are on display.

Sai Shan must be prosperous, we think. It has a cement threshing floor.

In the morning we shall make an early start, and our friend will serve us an early breakfast. If we are lucky we shall have finished by eleven o'clock, though we may be a little rude by cutting short the ceremony of a guest breakfast — chicken, fish, potatoes in gravy, and, greatest delicacy of all, hen's eggs which have been buried so long that they are black.

The 25 miles to the next village we shall cover in the heat of the day. One of us will bounce along in a little country chair slung between two poles, which two workmen from the rice fields will shoulder. The others in our group will walk, in greater comfort but less style.

The next village we come to will be much like Sai Shan, no matter which way we go.

Large Villages Are the Centers of Chinese Crafts

Every small village has its craftsmen. It has its shoemaker, who sells his wares from his own workshop. It has its barber, who walks through the street carrying his razor and other equipment with him (he is also the "eye, ear, nose, and throat specialist" of the village). Many other occupations are represented.

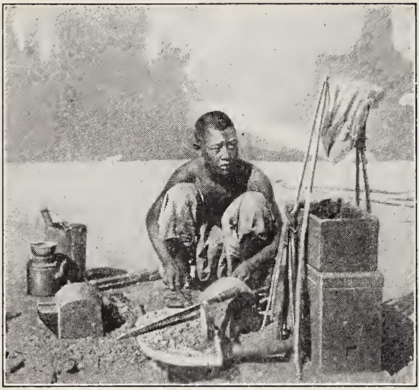

Fig. 207. Besides specialists in every craft, there is to be found in Chinese settlements the "handy man," who will repair anything from a porcelain bowl to a machine

In Canton and other cities one finds many craftsmen. There is "Shoe Street," the row of the shoemakers, whose shops are side by side. On Shoe Street one can buy thick felt slippers, straw sandals, and elaborately embroidered satin shoes.

There is "Jade Street," where carvers in jade sell that precious stone, which is so dear to the Chinese. Even the poorest workman of the rice field, or the coolie who pulls the jinrikisha, has his jade trinket. So much do people prize jade that the highest compliment one could pay a young man would be to say "he has a heart of jade."

There is "Dress Street," where embroiderers sit at their work, and looms display half-finished beautiful brocades.

In the large cities there are wicker or teakwood furniture shops. There are lacquer shops, where tea chests and trays are carefully made and decorated with elaborate gold patterns on black. There are hat shops and shops of ivory-carving. There are matting-manufacturers — places where coarse sailcloth and rice-straw mats are made. There are tileworks, which make the gray tiles for Chinese roofs. There are places where fine porcelain is made and decorated.

China today, as 1000 years ago, is a country of fine crafts.

How Are Goods Transported in China?

1. Lack of roads makes land transportation difficult

In raising his crops and getting them to market the Chinese farmer depends on his back or on the crudest of tools and carts.

When the vegetables, rice, cotton, or mulberry leaves are ready to be taken to market, they are loaded into baskets. These are attached one at each end of a pole, which is then shouldered and carried like a yoke.

If a single pig is to be sold, it is put into a sort of basket frame slung on a pole, each end of which rests on the shoulder of a coolie.

It is almost impossible for us to imagine the condition of travel between Chinese villages. One can go for many miles in the southern and central parts of China without seeing a single road or bridge. From every village there are uneven footpaths running out across the rice fields. So narrow are they that two persons cannot walk side by side. You can imagine how difficult it is to move crops, fertilizers, and all supplies along these paths! Unless the village happens to be on a canal or a river, there is no way to transport things to the next village except on human backs. Now and then one finds a trail on which horse-drawn carts can go. But in central and southern China there are almost no roads over which even rough wheeled carts can travel.

All kinds of freight are pulled by men and women. In the cities — for example, Shanghai, Canton, Nanking — a dozen or more men and women workers may frequently be seen pulling a single great load. In the United States and in some European countries such heavy loads would be hauled by motor trucks; but in China one can hire ten coolies for less money than he can hire a cart and an animal.

Out of every nine adults in Peiping one is a jinrikisha-puller.

2. By far the largest part of China's freight is carried on river boats

In China things have always been transported on the many rivers and canals. Since ancient times Chinese junks and rafts have carried goods up and down the waterways. Chinese history and Chinese life are bound up with the rivers.

In Canton alone over 500,000 people live on boats. These boat people, who make their living by carrying passengers and freight, pass their whole lives on these small boats, or "sampans." They eat and sleep there. Children play there. Very young children sometimes have boards fastened to their backs, so that if they should fall overboard they will float and be picked up.

Then there are bigger boats, or "junks," which are gaily painted. In these modern days the junks are towed by steam launches. In the old days they were propelled by great paddle wheels, and even now on the interior rivers of China this old method is used. The coolies turn the paddle wheels by treading on them, much as they turn the water-splashers at the irrigation ditches. Sailing boats also go up the broad Yangtze. Where the river is narrow, poles or towropes help them along.

So important has this river traffic always been in China that canals have been built to connect river systems. They form a network of waterways. Canals run right through cities so that goods can be taken directly to the shops, and green vegetables to the households. One canal in particular, the Grand Canal, is of great importance in China. It extends for 1000 miles, from the plains at Hangchow to the mountains north of Tientsin. It and its many small branches are used to irrigate the rice fields as well as to carry the products of the valley. This canal was begun in 540 B.C. and completed in 1320 A.D., and it is still in use.

There are railroads in China too between the largest cities, and some telegraphs and telephones. But that story must be told in another chapter.

THESE, THEN, ARE THE "UNCHANGING CHINESE"

After all, railroads, telegraphs, telephones, and the like are not really China — neither the China of yesterday nor the China of today. They may be the China of tomorrow. The China of today, as of yesterday, is the China of rice fields, of the tending of silkworms, of the endless carrying of things, of the making of fine things by hand, and of the observance of ceremonies in the family. That has been the life of the "unchanging Chinese." On the whole it is the life of the Chinese villagers today.

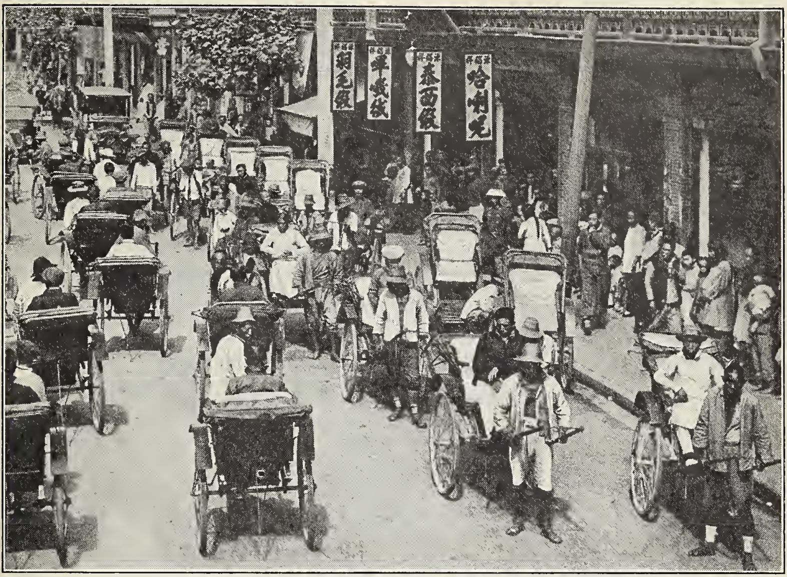

Fig. 208. Human muscles still largely take the place of animal and mechanical power in China. The jinrikisha is the most common vehicle in Chinese cities

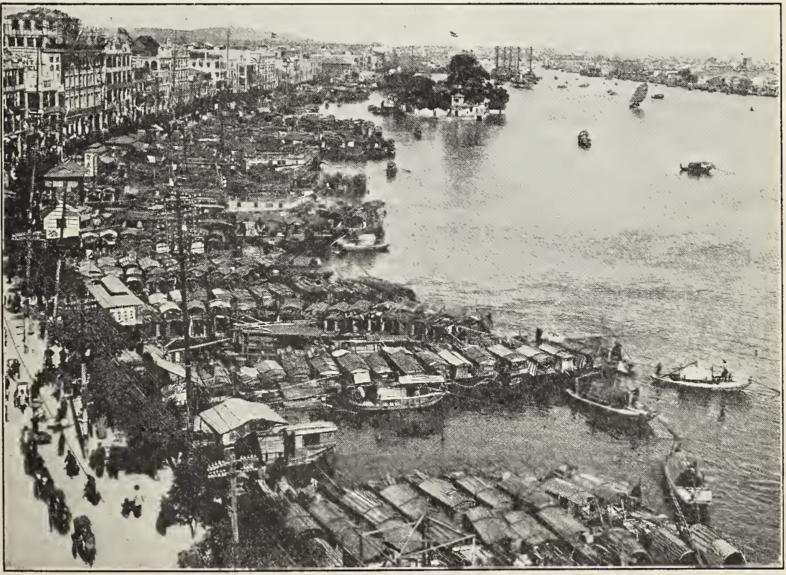

Fig. 209. Five hundred thousand people of Canton's population live on boats along the shores of the Pearl River. (Courtesy of Canton Christian College)

But China *is* beginning to change. It too is taking over some of the Western ways of living. For several hundred years Europeans have been going to China to trade, to teach, to introduce the Christian religion. For a long time the Chinese were not affected by them. They would not trade, they would not be taught, and they would not adopt another religion.

But gradually they did change. Very slowly, and only in the cities, they began to adopt Western ways of manufacturing, of transportation, of trade, of education, and of dress. Not for 100 years after the beginning of the Industrial Revolution in England did any change come in China, however. To part of that story we turn in the next chapter.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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CHAPTER XXII

THE CHANGING CHINESE

Forget for a minute the twentieth century, and go back 400 years. Imagine that you are in a cool garden in the Chinese hills. Great gongs clang now and then in the distance, and the green-black trees hide the chirping birds from your sight. The quiet servant is bringing tea. You smooth out the heavy silk of your coat and gaze out beyond the red gate to a sky dazzling blue.

What is beyond your garden? Where do the trails over the ageless hills lead?

No one knows.

Out beyond the great hills barbarians, wild and ferocious, ride their swift ponies to unknown lands toward the setting sun. Centuries ago the Grand Khan led these people into China, and it was said that his empire extended to the farthest limits of all that was created.

Of course this was not so. No one in China knows how vast the world is.

You sip your tea and think of a poem you have just read.

True, from time to time people have come from beyond these highest of mountains, the snow-capped ranges lying to the southwest. They have brought strange things with them. They have brought tales of other peoples and other ways. Probably most of it is idle gossip.

You saunter to the garden gate. How wonderful to be living in the greatest of all courts, here in the center of the world!

This imaginary moment in a garden of China 400 years ago can give you only a faint idea of how little the Chinese were interested in any other world but their own.

China, as far as she knew, was the only great center of civilization in the world. In past centuries barbarians from the north, if they conquered her by greater strength, had stayed and become Chinese. People in the outlying provinces had bowed before the great "Celestial Empire." People in the islands across the China Sea, the Japanese, had copied the Chinese ways and tried to become like them.

Once in a while, however, traders brought objects from other lands beyond China. They came from the far-distant Western countries. The three Polos, merchants from Venice, had come to China in the latter part of the thirteenth century. European monks too had visited the Grand Khan at about the same time. Later other Europeans had made the long, dangerous journey. But, on the whole, the Chinese were not affected one way or another by them.

In the 1500's European Traders Appeared in China's Harbors

In 1516, for the first time in our historical records, a ship sailed all the way from Europe to China. It was a Portuguese ship that had gone around the continent of Africa, across the Indian Ocean, through the islands off the southern end of China, and up the river to Canton. This was one of the longest sea voyages that had ever been made up to that time. Curiosity about the world and a desire for trade were carrying European people into many new lands. They were venturing farther and farther on the great unknown oceans.

The Chinese knew nothing of these "barbarian" Europeans except that they had suddenly arrived in their ports by *sea*, as they had never done before.

The Portuguese sailors took their boat up to the river harbor and leased a place at Macao for a trading post. They soon began to trade with Chinese merchants in silk, tea, spices, and ivory. We are told that they took what they did not buy and pay for, that they plundered villages and carried off people, and that they broke open the tombs of venerated emperors. Those were the days when European sailors took whatever they desired.

The Portuguese were only the first of many traders and adventurers from the West. The Dutch and other daring seamen soon followed. They too started a trading post. Then, in the 1600's, came the English East India Company, which set up a trading post at Canton.

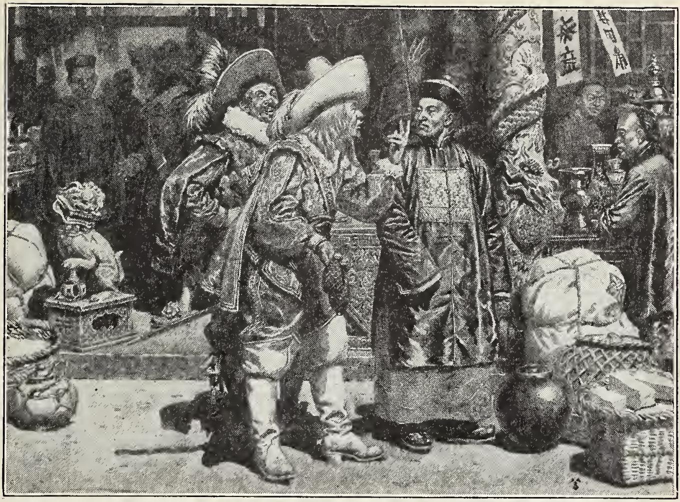

FIG. 210. As the artist imagined early trading between the Dutch and Chinese

Even people from America crossed the great Pacific in the 1700's. The Russians too began to go overland through northern Asia to trade with China. Both Protestant and Catholic missionaries went there to try to convert the Chinese to Christianity.

Thus as early as the 1700's strangers from the West went into China in increasing numbers. Some had been sent by governments. Others wished to make Christians of the Chinese. Most of them, however, hoped to make money in trade.

WERE THE CHINESE GLAD TO SEE THE STRANGERS?

The "barbarians," as the Chinese called the European traders, were, in most cases, not careful to learn Chinese ways and to respect them. They acted according to the ways of their own countries, which the Chinese considered very rude. The traders who had come overland had been well received. For the most part they had behaved well enough. But the seafaring traders were very difficult to deal with. They behaved much like ordinary robbers, and they showed no respect for the Chinese customs or people. The Chinese did not know what to think of them.

You can imagine some of the difficulties which resulted when you remember how the Chinese regarded their own soldiers and merchants. Chinese soldiers were people of the lowest rank, and even merchants were not regarded very highly. These foreigners from the West were merchants, and they carried weapons and fought as soldiers. Of course the Chinese, with their different customs, did not respect the Europeans.

At first China kept a strict control over the Europeans

At first the Chinese government was able to manage the foreigners, so that they did not annoy the people. But in the early 1800's the government was obliged to make certain rules which traders in the East India Company were to follow. Rule 5 stated:

> Foreigners must not row about the river in their own boats for pleasure. On the 8th, 18th, and 28th days of the moon, they may take the air as fixed by the Government in the 21st year of Kea-King (1819). All ships' boats passing the customhouses on the river must be detained and examined, to guard against guns, swords, or firearms being furtively carried in them. On the 8th, 18th, and 28th days of the moon these foreign barbarians may visit the Flower Gardens and the Honan Buddhist Temple, but not in droves of over ten at one time. When they have refreshed they must return to the Factories, not be allowed to pass the night out, or collect together to carouse. Should they do so, then, when the next holiday comes they shall not be permitted to go. If the ten should presume to enter villages, public places, or bazaars, punishment will be inflicted upon the translator who accompanies them.[1]

As long as the traders from the West could be controlled in this way China was in no danger of losing her old civilization.

So China kept apart from the Westerners.

How Europeans forced the opium habit on China

The Chinese people did not want or need the manufactured goods of the European countries. Traders had discovered that there were many Chinese things which were in demand in Europe, but it was hard to get the Chinese to accept European products in exchange. However, the Chinese came to like very much one product which the Europeans had to sell. That was opium.

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[1] Bertrand Russell, *The Problem of China*, pp. 47–48. The Century Company, New York, 1922.

Opium is a drug. When it is smoked, it clouds the mind and destroys the strength of the body. People who smoke opium get the habit of using it and find it difficult if not impossible to stop using it. Today the nations of the world have an agreement not to sell such drugs to one another. But there were no such rules back in the early 1800's.

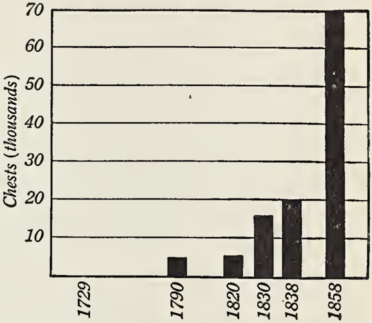


Fig. 211. The bars show the growth in the imports of opium into China between 1729 and 1858

Opium had been used in China as a medicine for over 1000 years. But it had not been smoked for pleasure. About 1650 the Portuguese traders sold some opium in China. The Chinese government tried to stop this trade, but was not successful.

In 1729 the emperor of China issued an edict, or order, forbidding the smoking of opium. It had little success. Other edicts followed, but none of them did much good. Opium-smokers who had developed the opium habit could not stop, and they were willing to pay large sums for the drug. But until the early 1700's only small quantities of opium were shipped into China.

Then the British traders in India saw their chance to make money. For hundreds of years the poppies from which opium is made had been grown in India, where the ruler of the country had full control of the business. In 1757 the East India Company gained control of it, increased the amounts of it produced, and enlarged the opium trade with China. In 1729 only 200 chests of opium had been sold to China. In 1790 (61 years later), in spite of the orders of the Chinese government, 5000 chests of opium were brought into China from India. In 1838 as many as 20,000 chests were sold there, and in 1858 no less than 70,000 chests! The last figure represents a very large amount of opium. The great increase in the trade shows how rapidly the Chinese people were getting the harmful opium-smoking habit.

The officials of China did all they could to stop it. In 1796 the *importing* of opium was forbidden. People caught smoking it were punished by being sent out of the country or even by being put to death.

Nevertheless, the habit spread. In less than 100 years it became a great and terrible menace in China. The opium-smugglers, some of whom were Chinese, became bolder. The Chinese officials did not have the guns and soldiers which would make it possible to stop the armed smugglers.

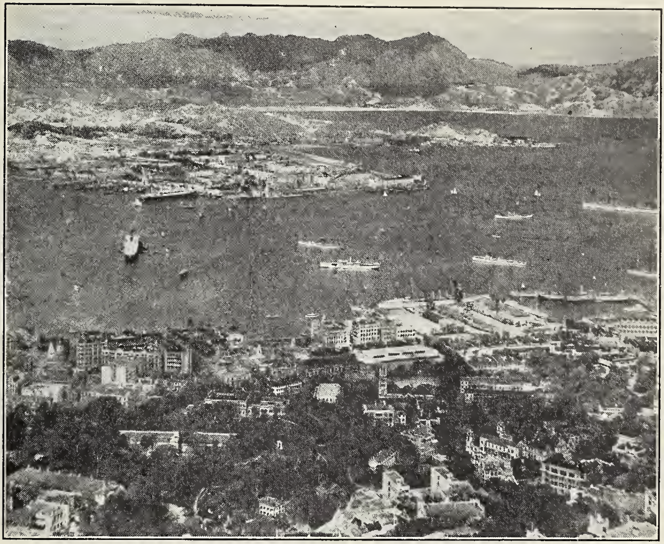
They tried to appeal to the honor of the Western countries, some of whose citizens were getting rich at the expense of the Chinese drug-smokers. In 1839 Commissioner Li sent a message to the queen of England. He told of the terrible effect opium was having on the Chinese people. He pleaded with Queen Victoria and the British government to stop the trade. But the answer which the British government gave was war. In the following years the English carried on one little war after another with China. Each time Great Britain won, and China had to meet her demands. In that way Great Britain secured both land and the payment of money from the Chinese government.

The Europeans Seized Privileges in China

As the result of the first war (1840–1842) China granted to the British the island of Hong Kong. Today Hong Kong is one of the most important ports in the world. China also had to agree to allow European traders to enter other ports. They were permitted to go into Shanghai, Ningpo, Canton, Foochow, and Amoy. China had to pay $21,000,000 to foreigners.

After the second war (1856–1860) the British were granted the port of Kowloon across the harbor from Hong Kong. Eight other ports were opened, and China paid $4,000,000. Though she did it unwillingly, she also had to permit opium to be sold out in the open. From then on, until 1907, or for about 50 years more, foreigners were free to sell opium to the Chinese people.

Finally, in 1907, Great Britain agreed that each year for ten years she would reduce by one tenth the amount of opium sent from India to China. In 1913 the British government in India discontinued the trade.

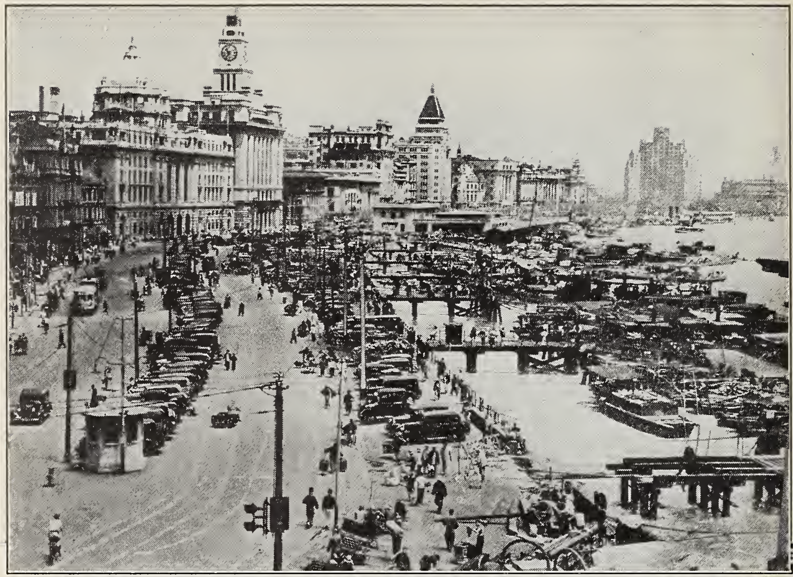


Lionel Green

FIG. 212. The harbor at Hong Kong, a possession of Great Britain and her most important trading point in China

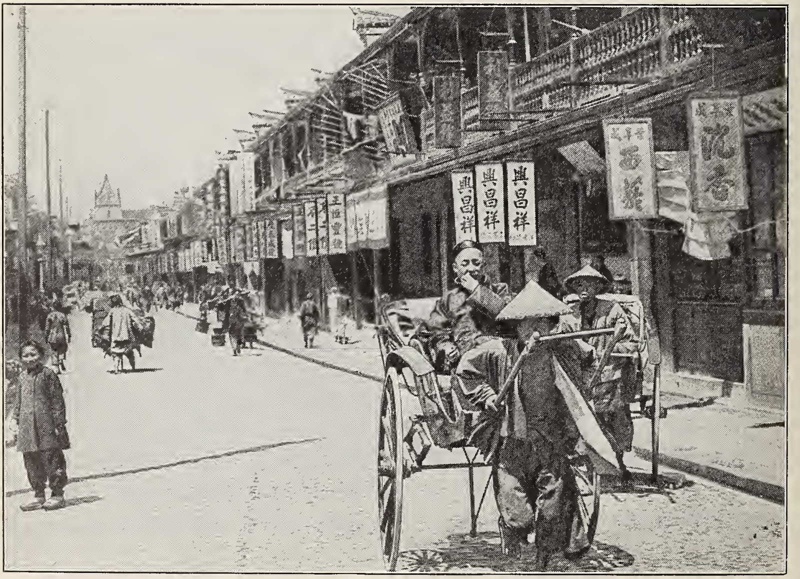
The opium trade cost China more than the harmful effect of the drug on her people. It cost her many people who were killed in the wars, large sums of money, and the loss of ports and sections of land to Europeans. Opium-traders really brought about the end of China's independence of the Western world. After her ports were forced open to traders she steadily lost one thing after another to the Europeans, who insisted on entering the country.

When the British, the French, and other Western people moved into Shanghai, they were given a mud flat outside the walls of the ancient Chinese city; for the Chinese law did not permit foreigners to own land within the city. The Chinese officials suggested that the foreigners have their own courts and their own city government. The Europeans went to work on their mud flats and built a modern, foreign Shanghai, with broad clean streets, a healthful water and sewage system, parks, and a fine residence and business district. Shanghai today has three separate



Acme

Fig. 213. The Bund, the finest street in the "foreign" section of Shanghai. Notice the trolley tracks and wires, the broad street, and the massive buildings. Do they show the influence of industrial civilization? Compare the picture with figure 214



Keystone

Fig. 214. A street in the old section of Shanghai

foreign sections beyond the limits of the Chinese city, each with its own government and courts.

In Canton the foreigners also built their own section. Today the Westerners live by themselves on a large island in the Pearl River, away from the main part of the city.

This happened wherever they went. Always they built up their own community; for no foreigners, except missionaries, could own land within the cities.

JAPAN DEFEATED CHINA IN 1894 AND TOOK LAND AND PRIVILEGES

Japan had already begun to imitate the ways of the West. With startling speed she was building factories and railroads and digging coal and iron. Then she too came to China for privileges and land. For example, she wanted Chosen,[1] the part of the mainland of Asia nearest to Japan, and had tried for centuries to get a foothold there. But Chosen was a tributary state to China.

In 1894 certain Koreans were protesting against Chinese rule. Japan took the opportunity to send soldiers into Chosen, and this, added to other events, brought about war with China. The Chinese soldiers, with their crude equipment, were no match for the modern guns of the Japanese. At the end of the war (1895) Chosen was made independent, and China gave up the large island of Taiwan to Japan. She also had to pay Japan $100,000,000.

It was humiliating, indeed, to be defeated by Japan, who, in the past, had learned so much from them, thought the Chinese leaders. They themselves now began to learn from Japan of the advantages which came from taking over the ways of the Westerners.

To pay off her debt to Japan, China began borrowing money from Europeans, and this put her more and more in the power of other nations. She borrowed large amounts from Great Britain and other European countries and, as security, gave railway and mining rights and the privilege of using certain territories for 99 years.

She granted permission to Russia to build the Chinese Eastern Railway. She granted land to France and permission to build on it the Yunnan Railway. In the same way Germany got permission to build the Shantung Railway.

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[1] Europeans called this Korea, but Orientals have always called it Chosen.

She promised to pay her debts from the money she took in on customs duties, and a foreigner was appointed head of the customs to see that this was carried out.

Thus with every conflict China was forced to give up more and more of her territory. She had to give permission to more and more foreigners to settle in her land. And as they came they brought their industrial ways of living with them. Would China become another India or Africa, merely a colonial possession of industrial nations?

Attempts of the Chinese to Save Their Country — the Boxer Uprising

The people of China disagreed as to what they should do. Some thought that to keep China for the Chinese they would have to drive out the Europeans. Others wanted to work out a plan by which they could cooperate with the Europeans. The Boxer Rebellion is an example of the way some Chinese people tried to deal with the foreigners.

In 1899–1900 small groups of Chinese began to form societies, or clubs. They called themselves the "Boxers." The Empress Dowager of China was a leader of these groups, for under the rule of her family, the Manchus, the Chinese had continually suffered at the hands of the foreigners. The Empress Dowager knew that the Manchus were not popular, and that people blamed them for allowing China to be humiliated by Great Britain, France, Germany, and Japan. The Empress Dowager, like the other Manchus, did not know what to do about it. The best thing she could think of was to urge the people to rise and destroy all the foreigners.

It was a foolish idea. How could they, who had always lost when they had attacked the foreigners in the past, hope to win now that foreigners were everywhere? The whole world was changing and it was impossible for any one nation to live apart from all the others.

Nevertheless, in 1899 and 1900 the Boxers organized a rebellion and began killing foreigners all over the land.

The result was what they might have expected. Soldiers came to China from many Western lands — Great Britain, France, Germany, Russia, even Japan and the United States. They easily took Peking and established military guards.

The uprising was crushed. Its failure showed how impossible it was for China to keep the Europeans away with the old methods of warfare. The Chinese had to pay a very large sum of money to the Western countries, $325,000,000 in all.

Young Chinese Who Studied in the Industrial Countries Tried Another Way to Save Their Country

After the Boxer uprising the United States set aside part of the money China gave her. It was used to pay for the education of Chinese boys in American schools. In the past 40 years many thousands of Chinese students have come to American schools and colleges. Here they saw what industrial countries are like, what the people do, and what they think. Many other Chinese students went to European schools and colleges. At last some of the Chinese people were getting a real glimpse of Western civilization. It stirred in many of them the desire to try to give China some of the same things. They saw that the people in Western countries were in better health than they and their neighbors in Asia. They saw that work could be done very easily by the aid of power-driven machines and rapid transportation. They saw the sanitary sewage systems of the American cities, the broad, well-paved streets, and the fine parks. They noted that most people worked only eight or nine hours a day. They saw that most of the people could read and that they enjoyed many kinds of recreations.

So these young Chinese students made up their minds that their people should become educated, so that they could have some of these things.

First, the students got rid of their Manchu rulers

First of all, the students said the rule of the Manchus must be ended. Wiser people should be allowed to lead the Chinese. The Manchus, who had governed China since 1644, were not Chinese. They were really foreigners, just as the Mongol khans had been.

So Sun Yat-sen, the great leader among the educated Chinese, urged the people to free themselves. China must be ruled by the Chinese, he said.

Sun Yat-sen and his party started a revolution which finally overthrew the Manchus in 1911. Sun Yat-sen himself was elected first president of China on New Year's Day, 1912, but he resigned in favor of Yuan Shih-kai, who became the first president on February 27, 1912.

Now the Chinese students were free to lead the Chinese people in what they thought was the best way. They said that the first thing the Chinese people needed to do was to learn the ways of the Westerners, or "ocean men" as they were often called. They must learn how to make things, transport things, build clean cities, develop schools, etc. as the Westerners did.

Japan had done this, and Japan had been successful in protecting herself. In 1904 Japan had even succeeded in defeating a great European country, Russia, in the Russo-Japanese war. A fine chance China would have had of defeating Russia! Yet Japan was not nearly so large as China. Until very lately Japan had been no more than an almost unknown little island country lying out beyond the Chinese sea. Japan's success made a great impression on the Chinese people.

China must do as Japan had done, some of the students said. She must become industrialized.

Second, the students educated many Chinese to adopt the ways of the West

As more and more Europeans had come into China they had introduced many new Western methods of industry. They had built railways, opened coal mines, and even built a few factories, where they manufactured goods.

Now China herself began to do the very things which for years she had tried to prevent the foreigners from doing.

She began to build her own railways and factories and to operate her own mines. When foreigners had built the first railway, the Chinese had been terrified. They called it the "snorting rail dragon." They raised enough money to buy the line and then tore it up and shipped the rails out of the country.

But now things were changed. Now the Chinese themselves began to lay tracks for the snorting rail dragons.

Of course, most of the railways in China are those built by foreigners, and most of them are in central and eastern China near the coal mines. The railways built by foreigners were built to transport coal. The coal-burning ships of the Westerners had to be supplied with fuel, and where rivers did not flow near the coal mines railways were needed to bring coal to the ships. Some railways have been built by the Japanese and some by the Russians.

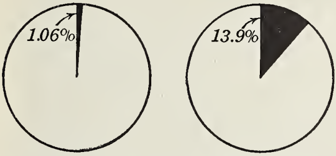

FIG. 215. The left circle graph shows the per cent of the world's coal which is produced by China. The right circle graph shows what per cent of the world's unmined coal China possesses

CHINA HAS JUST BEGUN TO DEVELOP HER HUGE RESOURCES OF COAL AND IRON

Engineers believe that China has within her boundaries huge deposits of coal. The circle graph of figure 215 shows that, according to their figures, China has under her soil about 14 per cent of the coal of the world. Indeed, it is believed that China has more high-grade coal than any other country except the United States.

However, in China less than 20,000,000 tons of coal are actually *mined* in a year. More than half of this very small production is still the work of companies owned or operated by foreigners.

The amount of coal produced in China is increasing, however, and it has almost doubled in the last ten years, owing chiefly to the development of a few large mines. One of these, in which both English and Chinese money is invested, contributes one fourth of the total production of the country. The Japanese also operate mines in southern Manchuria. Companies owned by Chinese have made good progress too.

COAL MINED IN CHINA

Nationality	Capital	Tons produced in a Recent Year
Chinese . .	$50,000,000	7,000,000
British . . .	$22,000,000	4,000,000
Japanese . .	$27,500,000	4,500,000

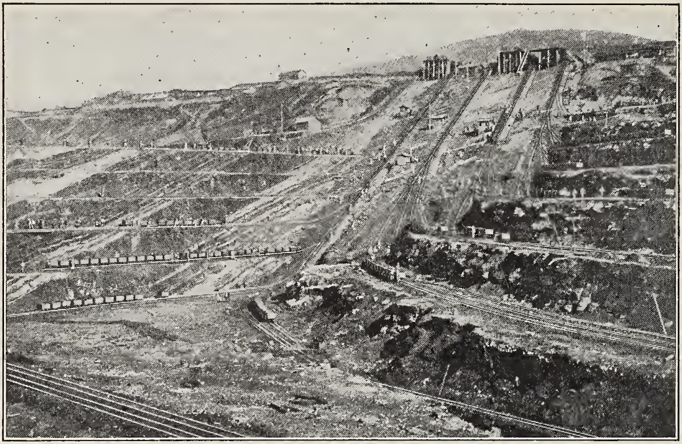

FIG. 216. The rich Fushun coal mines in Manchukuo are operated by the Japanese. (Courtesy of the South Manchuria Railway Company)

The table on page 465 compares the coal mines of the Chinese with those in China owned by British and Japanese.

Iron has not been produced in China so rapidly as coal, though engineers say that she has a large supply of iron ore. The modern furnaces that have recently been built in China turn out from 200,000 to 300,000 tons of pig iron a year. This, however, is a small amount when compared with the production in industrial countries. For example, in recent years the United States has been producing annually about 20,000,000 tons, over a hundred times as much. Up to the present time, however, most of the iron produced in China has been produced by companies owned by foreigners.

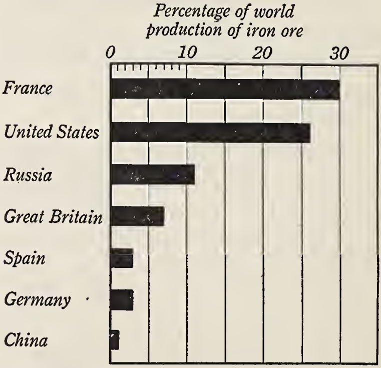

FIG. 217. Six countries of the world produce more iron ore than does China, the largest of them all

THERE ARE OTHER MINERALS OF VALUE IN CHINA

As you know, to make certain kinds of steel requires tin and antimony. Southern China has large amounts of tin. Each year China exports valuable cargoes of tin to the industrial nations.

As for *antimony, China produces nearly two thirds of the entire world's supply.* During the war (1914–1918), when steel was being produced in greater quantities than ever before, many antimony mines were opened up in China. Today, however, not enough profit is to be made from them to keep all of them open.

CHINA IS ALSO BEGINNING SLOWLY TO INTRODUCE MACHINE MANUFACTURING

Already China has begun to use machines and mechanical power in the manufacturing of cotton and silk. The Chinese began to make a little use of power machines about 1890. However, it is only since the close of the World War that Chinese cities have been taking up industrial ways of living rapidly.

NUMBER OF SPINDLES IN CHINESE COTTON MILLS

1906. . . .	400,000
1916. . . .	1,154,000
1923. . . .	2,666,000
1929. . . .	3,620,000
1935. . . .	5,022,000

At first the power looms were small ones set up in individual homes. Many knitting machines for stockings were operated in Canton. Today there are a number of modern factories in Shanghai, in Tientsin, in Harbin, and in Canton. It is estimated that in a recent year there were more than 1500 large factories besides several thousand small shops which used power machines.

TODAY THE CHINESE THEMSELVES LEAD IN INTRODUCING INDUSTRIAL WAYS OF LIVING INTO CHINA

The Chinese themselves own most of the textile and flour-milling factories.

In 1935 there were 125 modern flour mills in China, and they were producing more than 115,000 barrels a day. There were 80 match factories, 20 paper mills, and 40 tanneries — all Chinese-owned.

In 1935 in Shanghai, the center of textile industry in China, there were 95 Chinese-owned cotton mills, 44 Japanese-owned cotton mills, and 4 British-owned cotton mills.

What do you think about China? Has she begun to change her old ways? Do you think that she too may become a great industrial nation? Do you think that she can ever compete with Europe and the United States as an industrial country? What advantages has China? What does she lack?

SUMMARY: THE CHANGING CHINESE

For thousands of years the people lived on in much the same way. The old China was unchanging. Then came the Europeans with their industrial ways of life, and *China began to change.*

Today a new China is beginning to appear. Slowly it is learning from the West to relieve the muscles of human beings from their wearying tasks. At last, after centuries of separation from Europe and America, the Chinese are beginning to play a part in the modern industrial world.

Of course great advances toward industrialization have not been made as yet. Most of the 418,000,000 people in the villages of China are living as we described them in the preceding chapter. For thousands of years they and their ancestors have been cultivating rice and beans and silk, building houses, making clothes, carrying things without machines and engines — living without a knowledge of what we call "science." Of course change comes only slowly in such a huge country.

INTERESTING BOOKS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT IX

JAPAN: AN ANCIENT FARMING COUNTRY WHICH IS BECOMING A MODERN INDUSTRIAL NATION

Now we turn from the study of China to that of Japan.

It is frequently said that the Chinese and Japanese people are very much alike. In physical appearance they do seem very similar.

But are they alike? Are their countrysides alike? Are their villages alike? Does the traveler in Japan see the same kind of civilization as the traveler in China? Are the Japanese engaged in simple handicrafts?

There was a time when Japan resembled China in many ways. But today Japan is fast becoming industrialized, and although more than half of her population still farms in the crude ways learned ages ago from China, there is a new and different Japan to be seen in the cities and industrial areas. That *Japan is very different from China.*

In the next two chapters we shall try to understand both the ancient and the modern Japan. In Chapter XXIII we shall try to get a feeling for the way of living there before 1860. We shall learn what was happening there during the centuries in which Asia was so completely cut off from Europe. In Chapter XXIV we shall read of the astonishing transformation that took place among the Japanese after 1860.

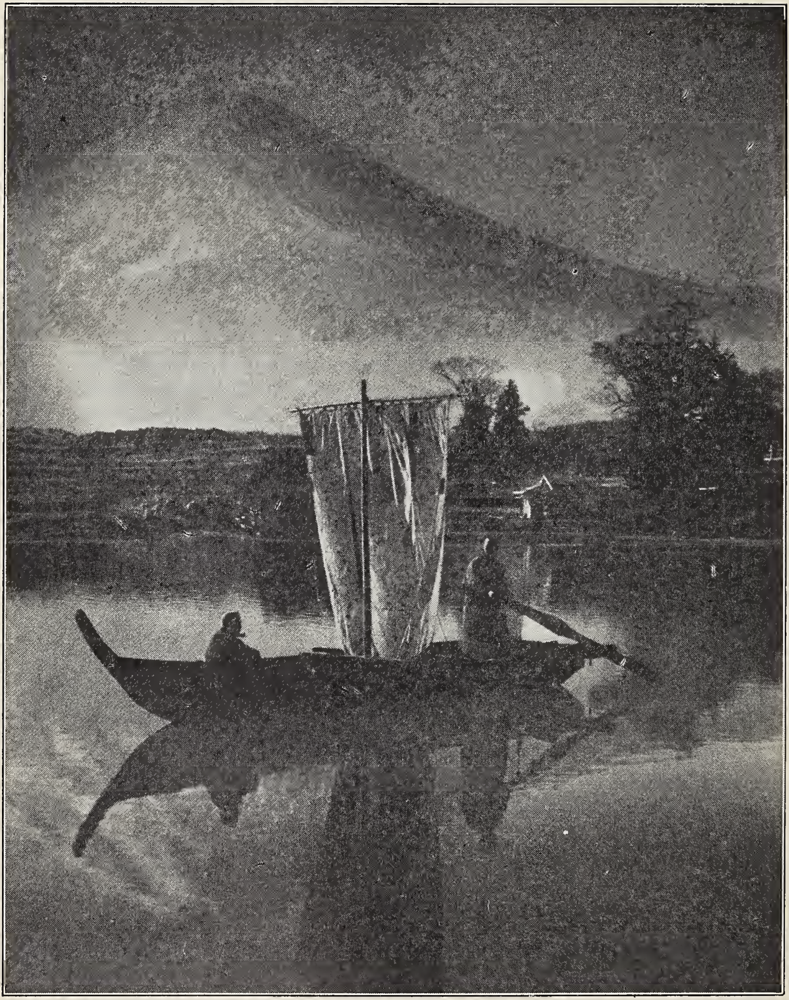

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Fig. 218. Fuji, the sacred mountain of Japan, up which thousands of Japanese pilgrims climb in the summer when its slopes are bare of snow

CHAPTER XXIII

JAPAN: AN ANCIENT FARMING COUNTRY

A Study in Contrasts

Our long trip across the Pacific is nearly over, and the wide blue ocean lies behind us. We get up at earliest dawn to see "the sight of our lives" — Fuji rising from the morning mists. We have read all about this mountain in our guidebook. It is a remarkable mountain, a true volcano cone, which, although it is miles inland, seems to be rising from the sea as it gradually slopes up from the coast.

Japan and Fuji? Of course! We have seen pictures of it all our lives, in books, on fans, on rice cakes. Fuji is a sort of trade mark of Japan.

We stroll out on deck and look ahead. We stop still, catching our breath.

For there it is — floating upon the mists, its white snowy peak sharply vivid against the blue sky. We catch our breath again. Why has no one ever told us how different it is from any other beauty in the world? It is not *real* at all. It is too fairylike, too brightly white; it stands against a too blue sky. There never was anything like it in the world. We shall never see such a sight again.

And we stand there, hating to turn away, hoping to preserve the picture in our minds by looking a long while.

We are soon to be in Japan — the land of cherry blossoms and of bright colors. The land of beauty and of make-believe. It is going to be a wonderful excursion, this visit to the island country across the Pacific.

Yokohama! We are in the harbor. The bay is filled with boats — big gunboats and freighters. Flags of all nations flutter at the sterns. Among the big boats and gay junks, small boats with brown sails are going in and out. From them the bright-eyed people smile up at us.

Our boat draws up to the dock. All the beauty vanishes. The noise and clatter are terrible. We might as well be in Boston or Baltimore. Warehouses surround us. Boxes and bales and the smell of sheds remind us of our own industrial ports at home. As we make our way down the gangplank, we are surrounded by men who try to sell us imitation pearls. We didn't know there were so many pearl necklaces in the world!

Taxi-drivers are offering to hurry us to our hotel. Someone who pulls a jinrikisha assures us that he will take us there just as fast. All is noise and clatter and dust and confusion, a disagreeable contrast to the beauty of the harbor.

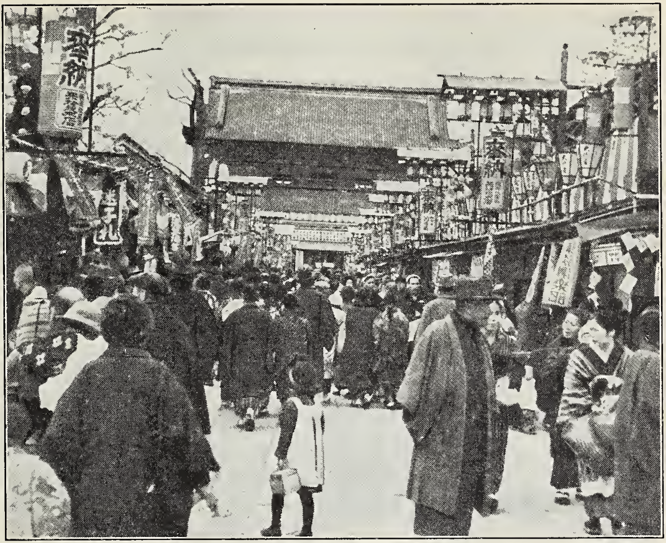
Our first street scene shows us this same contrast between the old and the new, which is such a surprise to one on his first visit to Japan.

We must have Japanese money; so we go to the first bank we see, a small place where money can be exchanged. There behind a window a man figures up on a wooden counting board how many *yen* (the Japanese money) we are to get for our American dollars. Down the street a fine modern bank is doing business in real Western style.

It is time for lunch. We ride in our tooting taxi to a restaurant such as we could find in the small towns of our country. But people across the street are eating their lunch kneeling on cushions before a low tray. Bright-colored Japanese vegetables are being cooked under their noses.

Yokohama is, indeed, a city of contrasts. Great steel and concrete docks jut out into the harbor. Warehouses dot the shore. There are macadam streets like our own. Department stores, rectangular buildings like those in European and American cities, line the main business streets. There are modern hotels for travelers, buyers, and salesmen who come from all parts of the world to trade in Japan.

Yet, when a great steamer with three funnels arrives in the harbor for coal, there are no steam or gasoline cranes to transfer coal from large, open, flat-bottomed barges, called lighters, to the coal bins or bunkers of the ship. Instead, this work is done by Japanese women who have taken positions on the ladders that are run up to the ship. Faster than seems possible, they pass little baskets of coal from one to another in endless-chain fashion —



Lionel Green

FIG. 219. A theater street in Kyoto

full baskets going up, empty ones coming down. The ship is so large, one wonders how such ants of beings can ever fill the hold of a twentieth-century ship with tiny basketfuls of fuel.

This is a strange way of working in a city of macadam pavements, fine hotels, and many taxis, but it is only one example of the many contrasts in Japan.

There are many industrial cities in Japan today.

Fukui is a busy center. Its streets are lighted with electric lamps. Factories are run by steam power and electricity. Homes are equipped with modern appliances of all kinds.

So, too, with Osaka. Sixty years ago this city was practically without a chimney, and was made up almost entirely of one-story houses. Now it is a great mass of smokestacks. Steel mills, modern shops, factories of almost every description, make a city fairly similar to those in America's industrial region.

Japan Has Changed So Suddenly that the Old and the New Are All Mixed Up

In 1850 Japan was a small nation of farmers, getting a very poor living by simple ways of agriculture. They were living in much the same way as the Chinese had been living throughout their history. There was hardly a machine in the islands of Japan.

In many ways it is the same today. On some small farms the work is being done by peasants with the crudest kinds of tools. In many regions the little plots of rice, tea, and mulberry are cultivated with tender care on terraces (such as you saw in figure 203). There the people are working over the soil, fertilizing, and irrigating by hand. In such regions nearly everything is done by hand with shovels, rakes, and hoes.

Yet much of this has been entirely changed within the last half century. A great portion of the farmers have become industrial workers. The population has increased to about 70,000,000. The wealth of the nation has multiplied rapidly.

Thus the old and the new are all mixed up in Japan. From a little island of primitive farmers it has become a crowded and powerful industrial nation. All within 90 years! How does it happen that this small island empire shows such sharp contrasts in ways of doing things? To understand it we must know what the country is like and a little of the history of the people.

A Close-up View of the Islands: What They Are, Their Number, and Their Size

Look at the map, figure 220. Find the curved string of islands which form Japan. How many would you say there are? Ten? Fifteen? How many can you count? If figure 220 could have been made the size of a wall map, your answer would have been quite different. *Japan contains over 3000 islands!* However, only about 600 of them are inhabited. The distance from the northern tip of the row of islands called the Kuril Islands to the southernmost point on the island of Taiwan (Formosa) is about 2500 miles, almost as far as from New York to San Francisco.

Now look particularly at the larger islands, beginning in the north. Find the island of Sakhalin. The southern part of the

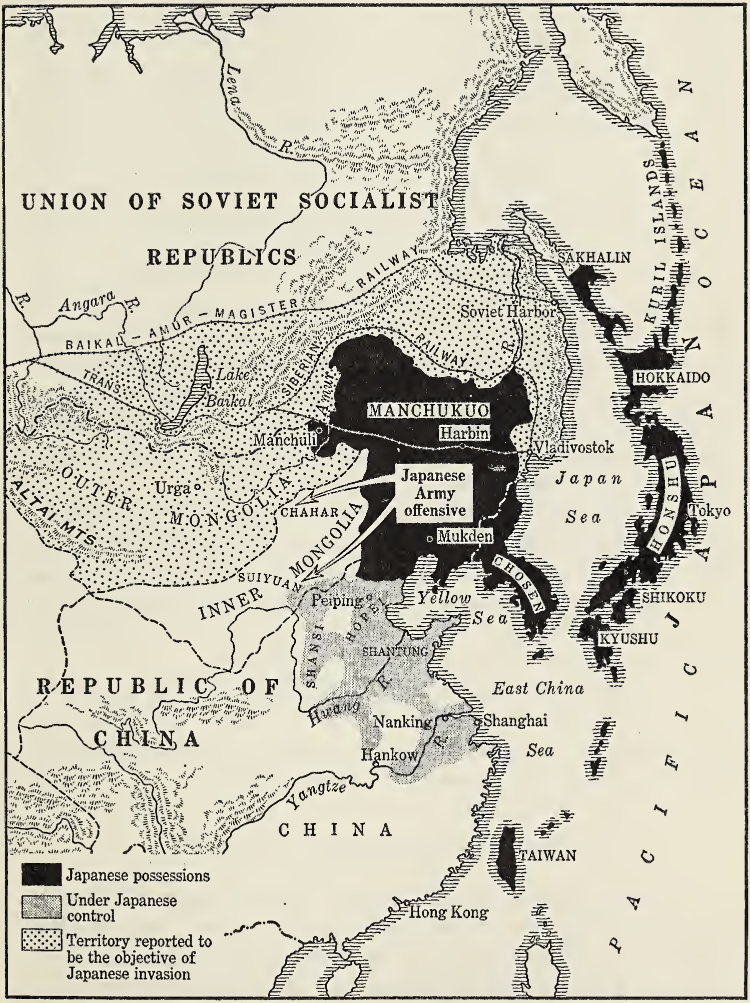

Lena R.
UNION OF SOVIET SOCIALIST REPUBLICS
Angara R.
R.
BAIKAL – AMUR – MAGISTER RAILWAY
TRANS-SIBERIAN RAILWAY
Lake Baikal
Amur R.
SAKHALIN
Soviet Harbor
KURIL ISLANDS
HOKKAIDO
MANCHUKUO
Harbin
Manchuli
Vladivostok
Japan Sea
HONSHU
Tokyo
JAPAN
PACIFIC OCEAN
Japanese Army offensive
Urga
OUTER MONGOLIA
ALTAI MTS.
CHAHAR
INNER MONGOLIA
SUIYUAN
Mukden
CHOSEN
Peiping
HOPEI
SHANSI
Yellow Sea
SHIKOKU
KYUSHU
SHANTUNG
Hwang R.
REPUBLIC OF CHINA
East China Sea
Nanking
Shanghai
Hankow
Yangtze R.
CHINA
TAIWAN
Hong Kong
■ Japanese possessions
▨ Under Japanese control
░ Territory reported to be the objective of Japanese invasion

FIG. 220. The islands which form the country that we call Japan lie off the coast of Asia. If Japan is to have more territory, it must be on the continent, as we see by the map

island (below the line) belongs to Japan. South of Sakhalin is Hokkaido. Below Hokkaido you see the long island which is the center of Japanese life and government — Honshu, the main island of the group. Between the horns at the south of Honshu is Shikoku Island. Below is Kyushu Island. Through the narrow strait between Honshu Island and Kyushu Island sail most of the ships which travel between the mainland of Asia and the United States. Finally, far to the south is Taiwan. The ones we have named are the important islands; they are the islands on which most of the Japanese people live.

The islands of Japan are really part of the mountain range which forms the eastern edge of the continent of Asia. The ground is so low between Japan and what we know as Asia that the ocean covers this low land. We can think of the islands of Japan, then, as being tops of a mountain range with water lying everywhere between the peaks. Imagine what an amount of coast this provides for Japan! Each part is entirely surrounded by water. A long coast and many harbors — Japan has both.

But Japan also owns a piece of the mainland of Asia. Find on the map, figure 220, the arm of the mainland which sticks out close to Japan — the region called Chosen. So shallow is the water in Korea Strait that a little upheaval of land would connect Japan and the mainland. We shall see later how important Chosen has always been in the history of Japan.

Also find Manchukuo which Japan established as a state in 1932, and the five northern provinces of China, and other vast lands which the Japanese armies overran in 1937 and 1938 in an effort to secure more territory on the mainland.

Who Are the Japanese People?

The early history of the Japanese could be recorded in only one way. This was by story-tellers who played their musical instruments and recited tales of the valiant deeds of emperors and warriors. Some of these stories have come down to us, but, like all stories which have been passed on from generation to generation by word of mouth, they contain more imagination than fact. However, we can gather some of the ancient history of Japan from these tales of early days.

We first hear of Japanese people living on the island of Kyushu. Where they came from we are not certain. Perhaps, long before the time our story begins, men and women had come across the narrow strait from Chosen. Perhaps some had come from other islands in the Pacific. No doubt people came from various places, and after generations of intermarrying became the people we call Japanese.

At any rate, these people from the southern islands pressed north to Honshu Island. They had to fight their way, for the native peoples tried to keep them out. Gradually, these "Japanese" made their homes on the principal islands of the big chain.

The conquering people settled in the midst of great mountain forests, which they gradually cleared away to make farms.

There were craftsmen among the Japanese, men who made pottery, shields, arrows, swords, and tools — the few necessities of those ancient times. Fighting, fishing, farming, and the simple crafts were the chief occupations of the men. The women spent their time spinning, weaving, caring for silkworms, cooking, and sometimes helping to do the farm work. It was a simple life. There were neither great riches nor great poverty, although there were slaves. These were probably prisoners who had been captured in war. There were also serfs, bound to the warriors.

Students of history believe that the Japanese have long had an emperor

Japanese historians say that the first emperor who established his capital on the main island was Jimmu, which means "Divine Valor." He is supposed to have become the *mikado* (the Japanese word for "emperor") in the year 660 B.C., although we are not at all sure of any of the facts about him.

This first emperor was not a ruler over a great organized empire. He was rather a sort of tribal chief, or leader of the clans. He lived much as the other people did. Historians of the Japanese report that these ancient emperors lived in simple huts. Their clothing was rough and made of hemp like that of their people. Their swords and other fighting equipment were of the coarsest kind. They lived like the common people, not even using slaves or serfs to carry their bows and arrows in fighting or hunting.

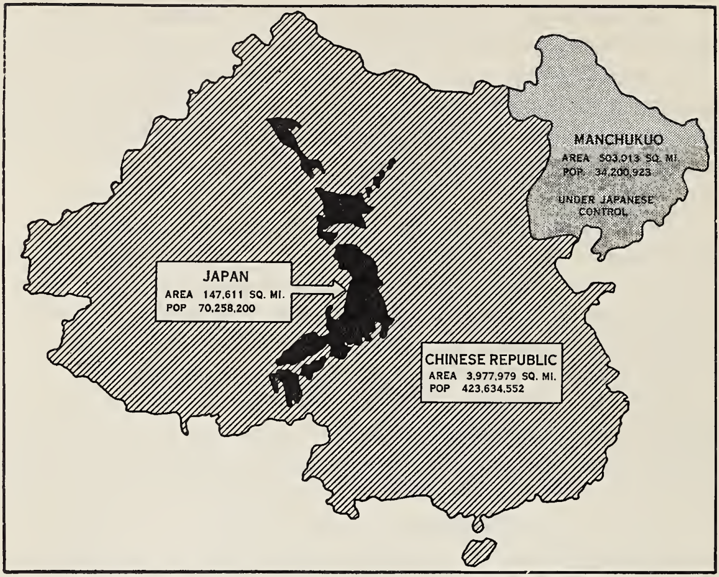

MANCHUKUO
AREA 503,013 SQ. MI.
POP. 34,200,923
UNDER JAPANESE CONTROL
JAPAN
AREA 147,611 SQ. MI.
POP 70,258,200
CHINESE REPUBLIC
AREA 3,977,979 SQ. MI.
POP 423,634,552

Fig. 221. Japan, even with Manchukuo which is under its control, is very tiny compared to China both in area and population

The Japanese a seafaring people

The earliest accounts of the Japanese show that they, like the British and many other island people, were always men of the sea. They went in and out between the islands to fish for their daily food, and some of them went even farther away. Some Japanese historians believe that Chosen was invaded by a Japanese army as early as the year 200. Whether or not such an invasion occurred, it is probable that Japanese traders and raiders went back and forth to the mainland from very early times.

Japan Borrowed a Ready-made Civilization from China

We have seen how simple the life of the Japanese people was during these early centuries of their history. They did not have a written language. They had no cities. There was little luxury of any kind.

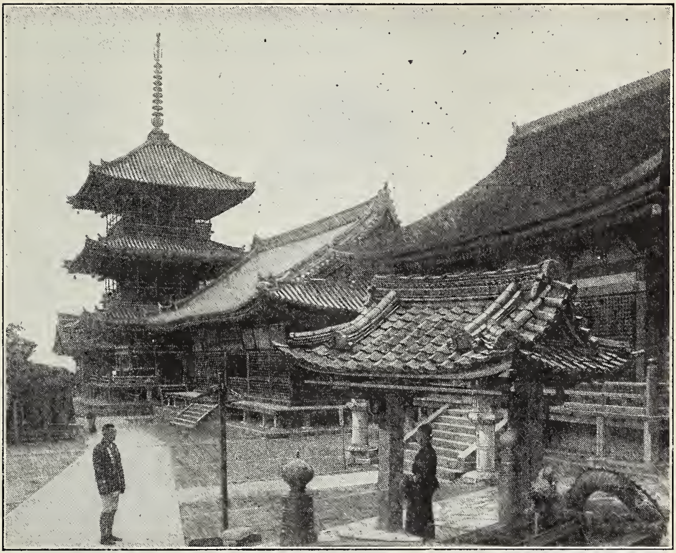


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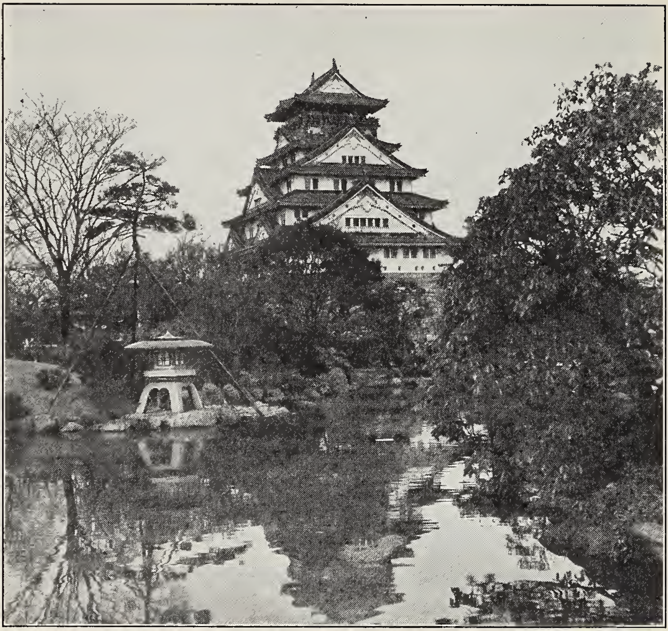
FIG. 222. Under the influence of China the Japanese learned to build beautiful temples. The one shown above is located in Kyoto

But to the west of Japan was the great Chinese Empire. The Chinese had a language and many books had been written. There were great Chinese thinkers and artists. Beautiful temples had been built. Agriculture, industry, and commerce were highly developed.

About the end of the sixth century the Japanese rulers began to send people to China to study the teachings of Confucius and to learn Chinese ways. Some remained there for 25 or 30 years. From what these Japanese students learned about the laws of China a new body of laws was made for Japan. In the 600's a Japanese emperor started schools where people could study Chinese ideas and ways.

Meanwhile, travelers kept going back and forth, and the Japanese learned more about the great empire to the west. Chinese scholars and craftsmen began to settle in Japan. They showed the Japanese people how to make useful and beautiful objects and how to build temples. They taught them the Chinese way of



H. Armstrong Roberts

FIG. 223. Osaka Castle, one of the many beautiful Japanese palaces

writing, and the Japanese, who had not written before, began to write in the Chinese way. In these and other ways Chinese civilization spread to Japan.

Today throughout Japan one sees everywhere traces of Chinese civilization — in the kind of dress people wear, in the crafts, in the buildings, and in the pictures.

Japanese craftsmen acquired great skill under encouragement from the court

Because the rulers encouraged the work of the Japanese craftsmen they acquired great skill in the arts and crafts. They had made things such as swords, cloth, and shoes before, but these were the necessities of life. They now developed many new arts and crafts. They painted pictures, carved ivory, and made lovely enameled and lacquered objects. Everything the humble craftsman made was, to a certain extent, beautiful. That, of course, is not true in our modern industrial civilization, where vast quantities of goods are turned out quickly for use rather than beauty, and often with little help from human hands.

In the early days the Chinese had woven beautiful patterns into their cloth. The Japanese learned how to do this, too. Later the Chinese embroidered their cloth instead, but the Japanese continued to weave most of their patterns. They still do this probably better than any other people in the world.

The Japanese also worked with metals. Their swords were very fine pieces of metal work. They learned how to inlay one metal with another metal. For example, they set silver or gold designs in pieces of copper, and they made gorgeous gold patterns in lacquered objects.

Thus luxury and beauty was centered in the court of the emperor and in the castles of the nobles. But what about the common people? Did they share in this luxury?

We must remember that the court of Japan, like the court of old France, was kept up by the taxes which the working people had to pay. *It was the farmers and craftsmen and traders who provided the money for this luxury. The greater the luxury of the court, the worse was the condition of the people.*

The Division of People into Classes

Throughout Japan's history its people have been organized much as they were in the Middle Ages in Europe. Whether mikados held the chief power of the land or not, the life of Japan has always been centered around the fighting people. In this system, bravery and strength were considered most important, and fighting was more or less the daily routine.

After the middle of the ninth century, except for a brief period, the emperor no longer had any power. The daimyos (war lords) were in control, and from the middle of the twelfth century the actual power was in the hands of the great daimyo, a war lord who had overcome all his rivals. This arrangement lasted for seven centuries. Then the emperor once more took over control.

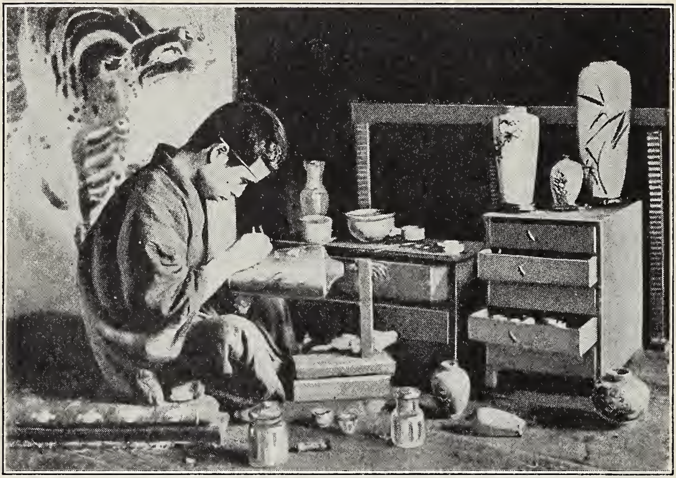


FIG. 224. Japanese craftsmanship was encouraged under the later emperors, and Japan became famed for beautiful porcelain and other handmade goods. (Courtesy of the United States Department of Commerce)

Not scholars as in China, but *samurai*, or warriors, came first in Japan

The *samurai*, or fighting men, have stood at the top of Japanese society since the days when the clans conquered the islands. They had certain rules by which they guided their conduct. They must not mingle with people of the lower classes. For example, they did not attend theater or enjoy other forms of recreation with them. They were always under military discipline. If, by some mistake or failure, one of the samurai did harm to his lord, he must commit suicide.

The samurai did not live in luxury. They received their pay in rice, which they got from their lords' granaries. They brought up their children sternly, teaching them to live up to the samurai code of honor and bravery. Every samurai boy had to face death at least once before he was grown.

This warrior class formed only about 6 per cent of the people. Below them were the three classes of workers, who supported them. First, there were the farmers, most of whom were serfs on the land of the nobles. Some of them, however, were freemen who owned their own land. Second came the artisans — smiths, carpenters, weavers, potters, and members of other crafts. The most honorable of the crafts was that of the swordsmith. Lower than the artisans was the commercial class, including bankers, merchants, shopkeepers, and traders.

As in China, money-making by trade was considered degrading. No matter how rich a trader might be, he ranked below the farmer and the artisan. In this the order was like that of China. The interesting contrast, though, is that of the position held by the fighter: he came last in China, but first in Japan.

The lowest of all were the outcastes. They were well-diggers, garden-sweepers, straw-workers, sandal-makers, animal-tamers, and professional singers.

The discipline under which the samurai class lived was shared somewhat by all other classes

These old-time Japanese were not free to do as they pleased. They all had to obey definite and severe rules.

Each person has to be absolutely loyal and obedient to his superior — each serf to his master, each samurai to his lord, and each lord to the overlord of the lords. Each must give his life, if necessary, for the one above him. Wives owed the same loyalty and obedience to their husbands, and children to their parents.

The rule of the family and the village was strict. To be kind, unselfish, cheerful even in the face of disaster and pain, was required of every person, young and old. The fear of banishment, of being sent from Japan, was held over the heads of all who did not obey these rules.

In most cases, however, the rule was not harsh.

Till the 1500's the Sea Protected Japan from the Outside World

Japan had traded with China and Chosen for centuries. She knew about the life in these two regions, but of any other people she knew little. Surrounded by the sea, she was safe and undisturbed. For over 2000 years she had nothing to fear from invaders.

The Grand Khan of China, Kublai Khan, in his efforts to rule the whole world, attempted twice to conquer Japan. That was in the thirteenth century. But both times violent hurricanes, called typhoons, destroyed his boats and drowned most of his soldiers before they even reached the islands. After the second expedition, when over 100,000 of his soldiers were lost, even he became discouraged and decided to stay away from Japan.

But the sea did not keep people away in the sixteenth century. People of the Western world went into Japan just as they had gone into China.

European traders again!

In 1542 or 1543 some Portuguese traders were driven ashore on one of the Japanese islands. They were treated with kindness by the Japanese, who were much interested in the Portuguese guns and other weapons.

News of the discovery of Japan spread among the Portuguese traders, and soon they were carrying on a lively trade. They were busy bringing goods into Japan and carrying Japanese goods to the outside world. These traders were welcomed by the Japanese warrior lords.

Soon Portuguese missionaries came with the traders. These men too were welcomed by the Japanese lords — probably because the Japanese thought that if they were not kind to them the traders would discontinue carrying goods back and forth. They were glad to get firearms, and as long as the traders and missionaries caused no trouble they let them come.

But the Spanish, Dutch, and English traders who were now scattered throughout the East were jealous of all the profitable trade which the Portuguese were carrying on with Japan. About this time a Spanish ship was shipwrecked on the coast of Japan. The Spanish pilot showed some Japanese officers a map of the world and pointed out the vast extent of the Spanish empire. When he was asked how one country gained so much territory, he said:

> Our kings begin by sending into the country they wish to conquer, missionaries, who induce the people to embrace our religion, and when they have made considerable progress troops are sent, who combine with the new Christians, and then our kings have not much trouble in accomplishing the rest.[1]

[1] Captain Frank Brinkley, R.N., "Japan," in *Encyclopædia Britannica* (Eleventh Edition), Vol. XV.

Perhaps there was a good deal of truth in what the Spanish pilot said. At any rate it seemed to happen like that in Japan.

As time went on the missionaries in Japan made many converts to the Christian religion. It is sometimes said that as many as 600,000 Japanese were converted by the missionaries.

As soon as they found themselves strong, these missionaries became harsh and refused to allow people to have other religious beliefs. They destroyed temples and shrines and tried to stamp out all the old religions. Not only did they act this way, but certain groups were found to be plotting to overthrow the Japanese government with the aid of foreign soldiers.

How Japan put out the foreigners and closed her doors to the outside world

Owing to these facts, the Japanese military rulers turned against the Christian missionaries and the converts and tried to stamp out Christianity. The Christian converts rebelled against this in 1637, but they were put down after much blood had been shed.

In addition, the Japanese were so angered by the behavior of the missionaries and by their attempt to gain control of the government that they drove out nearly all foreigners — traders as well as missionaries. Only the Dutch traders were permitted to remain. They had to agree, however, to stay on one small island, to hold no religious services, and to go to the main island only once a year. They were willing to make these promises because they did not want to lose the trade in silk and gold and copper.

Except for these Dutch traders on their little island, Japan cut herself off completely from the European world. For 200 years the sea protected her people against the big ships and firearms of the Western nations.

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CHAPTER XXIV

JAPAN CHANGES INTO AN INDUSTRIAL COUNTRY

By 1905 Japan was no longer an unvisited group of islands between the Sea of Japan and the Pacific Ocean; she was a world power. She had defeated Russia in warfare, and she had humbled China, her old teacher and model. Her statesmen went across the world to discuss world-wide affairs with Germany and France, with Great Britain and the United States. In 75 years a backward country of farmers had become a powerful industrial nation.

How did it happen? How did this sudden change come about?

In the 1850's the Western Nations Beat at Japan's Doors and Made Her Open Them

One summer day in 1853, as the Japanese were going about their work as usual, a fleet of black vessels, sending smoke to the blue heavens, sailed into the harbor of Yokohama. At the sight of these "big black fire-ships of the barbarians" the Japanese people fled in panic. Perhaps their villages were to be destroyed! They had heard of the barbarian Westerners before! The strangers were to be feared, not trusted, it was said; so many people fled to the hills.

These monster ships were in reality four steam-driven war vessels from the United States. On one of them was Commodore Perry bearing a letter and gifts from the President of the United States to the Emperor of Japan. The letter asked Japan to protect American shipwrecked crews, to set aside a port at which American whalers could obtain supplies, to permit American ships to have a coaling station on some small island, and to open one or more ports to American trade.

This was the first loud knock at Japan's closed doors. What was she to do? She could not hope to keep her harbors closed to these strange smoking ships that belched fire. They came from

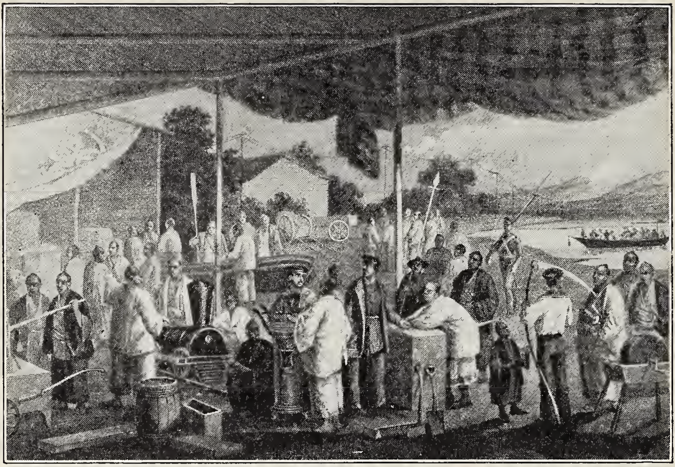


FIG. 225. Perry's arrival in Japan. Note the steam engine in the picture, a gift from the United States. (From an old print)

far across the world, then disappeared, and more came after them. What good were the old Japanese forts against them? Of what good was a Japanese boat, beautiful though it might be? The strangers had powerful guns and weapons and fast boats.

SOME JAPANESE LEADERS LEARNED FROM THE WESTERNERS; OTHERS OPPOSED WESTERN WAYS

Between 1854 and 1857 Japan made treaties with the United States and several European nations. She let traders enter her ports, buy her products, and sell their wares to the Japanese people. She had permitted only Dutch traders to come before. Now she had to admit any strong foreign gun-bearing visitor.

The Chinese had struggled in vain against the foreigners. The leaders of Japan quickly saw that they also would be unable to hold out against them. They saw what it took the Chinese so long to admit, namely, that they were no match for industrial nations and that their only protection was to be like the Westerners. So they turned to learning the ways of the newcomers. They observed the strangers carefully. They imitated them.

Young gentlemen of Japan went abroad to Western colleges and universities to study science and engineering. Those who stayed in Japan studied under foreign teachers and learned Western languages. Many, many schools were built, and all the children were compelled by law to go to them.

Of course, there were some Japanese people who believed that the new ways would ruin Japan. Some of the lords actually rebelled. As a result foreigners were attacked on the streets and a few were even killed.

The samurai, who were not in favor of Western ways, controlled part of the coast of Japan and from their forts fired upon foreign war vessels. What happened then to the samurai was just what happened to the Boxers in China. Great numbers of foreign vessels appeared from the sea, more than enough to destroy the forts. The samurai were defeated, and Japan had to pay $3,000,000 for their unwise behavior.

The Japanese had always been quick in learning new ways. Now they rapidly took over the ways of the Westerners.

JAPAN'S RESOURCES

1. Japan had one factor important for industrial development: a good climate

We have encountered one example after another of the importance of climate in determining how people live.

Japan, like the other industrial countries, is favorably located. The islands stretch north and south over a distance of 2000 miles. They extend from 22° north latitude to 50° north latitude. The island of Sakhalin on the north has a frigid temperature like that of Greenland. Taiwan, 2500 miles south, has a hot tropical climate. The central islands, where most of the people live, are in the North Temperate Zone. Here occur the typhoons which are such a great source of trouble as they sweep across Japan. A dozen times a year they come up from the China Sea, bringing huge waves, which wash over the coasts. These sometimes destroy whole cities.

Rainfall in the central islands is rather heavy, especially in the summer, and after heavy rains streams rush down the mountainsides in torrents. Often in these rushing waters people are drowned, farms are washed away, and the entire land is damaged.

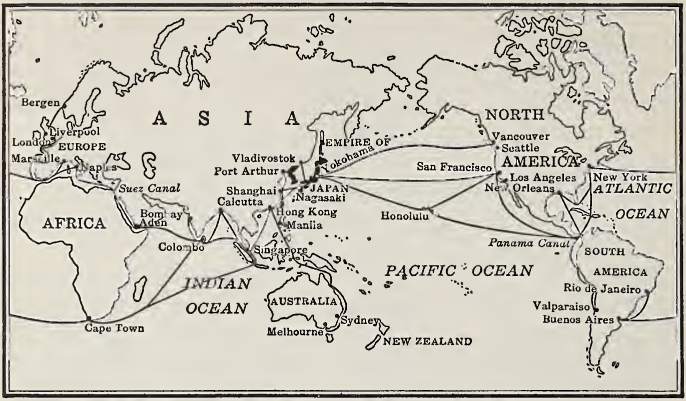

Bergen
Liverpool
London
EUROPE
Marseille
Naples
A S I A
Suez Canal
AFRICA
Bombay
Aden
Colombo
Vladivostok
Port Arthur
Shanghai
Calcutta
EMPIRE OF
Yokohama
JAPAN
Nagasaki
Hong Kong
Manila
Singapore
INDIAN
OCEAN
AUSTRALIA
Sydney
Melbourne
NEW ZEALAND
Cape Town
Honolulu
PACIFIC OCEAN
NORTH
Vancouver
Seattle
AMERICA
San Francisco
Los Angeles
New Orleans
New York
ATLANTIC
OCEAN
Panama Canal
SOUTH
AMERICA
Rio de Janeiro
Valparaiso
Buenos Aires

FIG. 226. The principal Japanese trade routes are shown on the map. Japan became a world trading country later than did the United States, England, France, or Germany, but today her ships are to be met in every ocean

2. Are the Japanese well located to trade with other people?

Turn back to the map of figure 17. Note that within the sector including the Malay States, Japan, part of China, and India, about 1,000,000,000 people are living. Now compare Japan's position on this map with her position on the trade map of figure 26. What a fine location for reaching the important *Eastern* ports of the world! How close to the 424,000,000 people of China — and only three or four days' travel from the Philippines and other island regions of the Pacific! And what about the United States, with which Japan trades to such a great extent? Fast ocean steamers now join Seattle with Yokohama. The 260,000,000 people of North and South America are only an ocean journey of eleven days away from Japan.

3. Has Japan valuable power resources: coal, oil, and water power?

It has been estimated that Japan has nearly 8,000,000,000 tons of coal. When one considers the size of the islands, this can be regarded as a large supply. The Japanese have been mining coal for more than 400 years; but because the coal is found in small seams deep in the earth, mining is very expensive there.

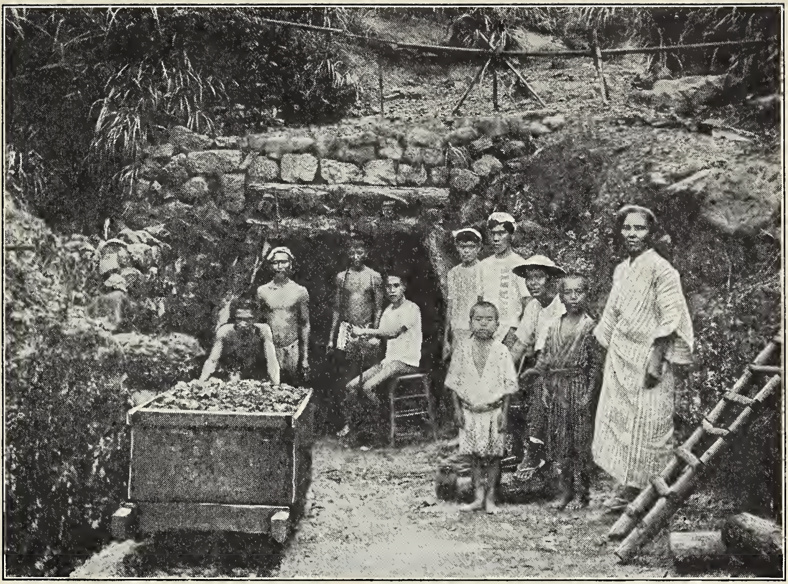
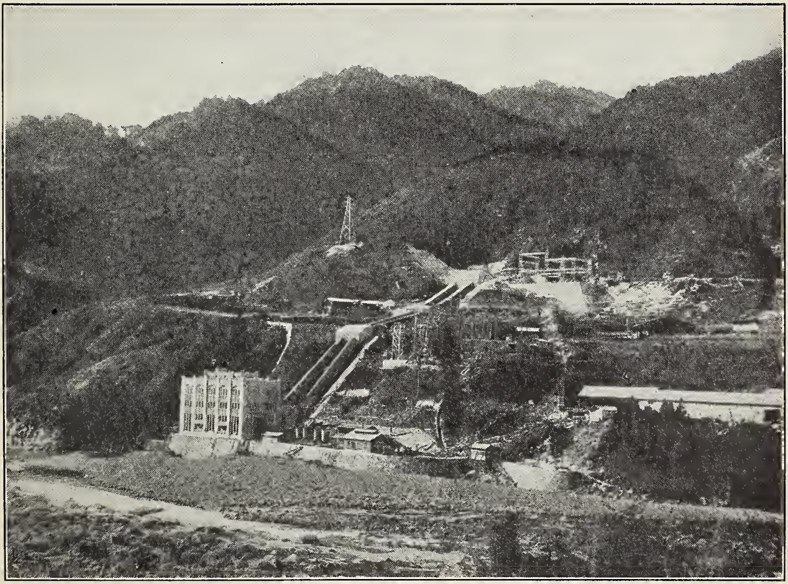


FIG. 227. The entrance to a Japanese coal mine



Ewing Galloway

FIG. 228. A hydroelectric power station in Japan. Japan is learning to use her power resources in the Western way

There are other sources of power in Japan — petroleum and water. The more important is petroleum. Turn to the map of figure 161, on page 341. This map shows the location of the known oil deposits of the world. Has Japan a large amount of the world's oil? How does the number of her fields now producing oil compare with those of the other parts of the world? Is it large when one considers her area and the number of her people?

One of the greatest sources of power in Japan is water. Remember that the Japanese islands are really the tops of a long range of mountains. As we have said, the central islands get a large amount of rainfall, especially in the summer, when streams roar down the mountainsides.

Rushing rivers can be used to make great amounts of electrical power. In some parts of Japan it is already being done, as you can see from figure 228. In Japan water could be even a much more important source of power than it is in the United States, for the islands are small, distances are short, and electrical power could easily be transmitted over Japan. Today when one travels about Japan he sees transmission lines all along the way. These carry the electricity into the towns and cities. From time to time the traveler sees power stations built in the hills.

4. Does Japan have the necessary iron and other metals with which to build up machine industries?

We all know by now that iron is absolutely necessary to an industrial nation. We have found that the United States, Great Britain, France, and Germany were able to do power manufacturing on a large scale because they were able to secure iron. Has Japan enough iron?

Turn to the map of figure 51, on page 85. It is very clear indeed that Japan lacks iron ore. She has very little in her own islands.

To become a great industrial country, therefore, Japan had to get her iron from other places. Without it, industrial life for Japan was impossible. You have seen how England adds to her iron supply by importing it from Sweden. Could Japan get a supply of iron from any nearby country or countries?

Yes; she could get it from China, from Chosen, and from

India. No one of these is very far away, and the two first are close by and rich in unmined minerals.

In other minerals Japan is unusually well supplied. She is one of the leading nations of the world in the mining of copper, producing $50,000,000 worth a year. She has also fairly large supplies of sulphur, zinc, lead, gold, and silver.

5. Wealthy leaders had money to invest in the new industries

In Japan there have always been certain powerful and wealthy lords. When the Westerners began to enter Japan, these leaders did not wait to let their country fall into the hands of the powerful industrial nations. They set to work. They took their wealth and invested it in industries. They bought modern machinery and set up modern factories. When their young men returned from Europe and America as trained engineers and scientists, they put them to work developing mines, building factories, and laying railways. They borrowed large amounts of money from the Western countries, however, to help them develop their industries.

Many of the big businesses of Japan are family affairs, which continue on from father to son, each generation adding to the money invested and making improvements. Today fifteen family groups control 30 per cent of the total business capital of Japan.

One example, the rich Mitsui family, illustrates how the Japanese have kept their family groups together as they have become industrialized. The Mitsui family's business undertakings go back 300 years. In all that time a head of the family has directed the business of the family and passed it down to the next in line at his death.

In the beginning the Mitsuis had a drapery shop. In connection with the sales of this shop they began to do a little banking. Then they became interested in foreign trade and organized the Mitsui Bussan Kaisha, a general trading company. This company now has 21 branches in the Japanese Empire and 36 offices in foreign countries. In 1876 the Mitsui bank was started. In 1889 the Mitsuis got coal mines from the government which today produce annually one fourth of all the coal mined in the Empire. They also have a paper company and engineering works. Among other things, they control docks and shipbuilding yards, cotton mills, a celluloid plant, and a radio factory.

The Mitsuis also control industries outside Japan. They are shareholders in the South Manchuria Railway, which is owned by Japanese. They own great tracts of land in Manchukuo, where they introduced the raising of soybeans. It is they, and not the Chinese, who are responsible for this valuable agricultural product, which is now Manchukuo's chief export. They own their mills for extracting soybean oil and the tanks where it can be stored, at Dairen, in Manchukuo.

The industrial development of Japan is well illustrated by the history of the Mitsui family. There are three or four other merchant families that are near rivals of the Mitsuis, though none is so powerful.

Japan Needed the Coal and Raw Materials in China and Chosen; She Reached Out for Them

Like other industrial countries, Japan depended on other regions for many things. She lacked easily mined coal and raw materials. China and Chosen, near at hand, had vast resources which Japan wanted. So the Japanese did what some of the other industrial nations did: she reached out and took the coal and raw materials she needed.

Look at the map following page 424. Notice how close the peninsulas of Chosen, Shantung, and Liaotung are to Japan. Shantung and Liaotung belonged to China in 1894, and Chosen was under her protection.

It was easy to pick a quarrel with China. This Japan did, and declared war in August, 1894. The Japanese had constructed a modern army and battleships, which crushed the Chinese army and navy almost instantly. Within six months the Japanese were near the Chinese capital, Peking. So, to make peace, China gave Japan the entire Liaotung peninsula and the island of Taiwan and the Pescadores. More important still, she acknowledged the independence of Chosen. This was Japan's first step toward seizing control of Chosen.

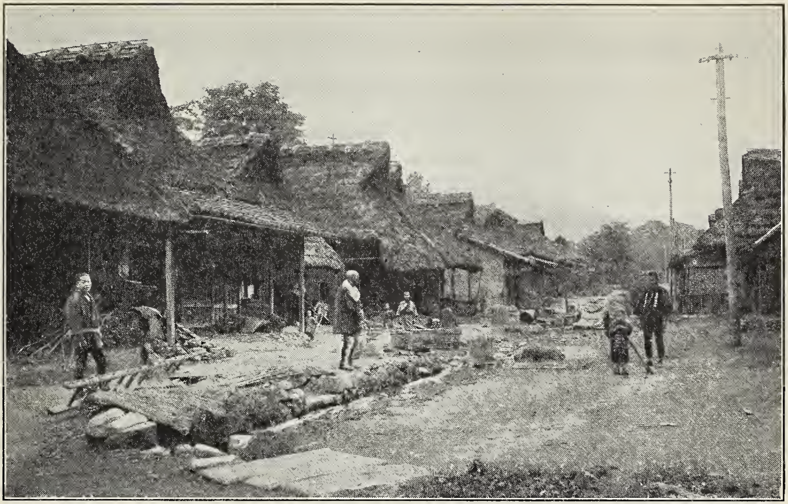


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FIG. 229. In many little villages like this, every home is a nursery for silkworms; most of the silk produced in Japan is made in the homes of the people

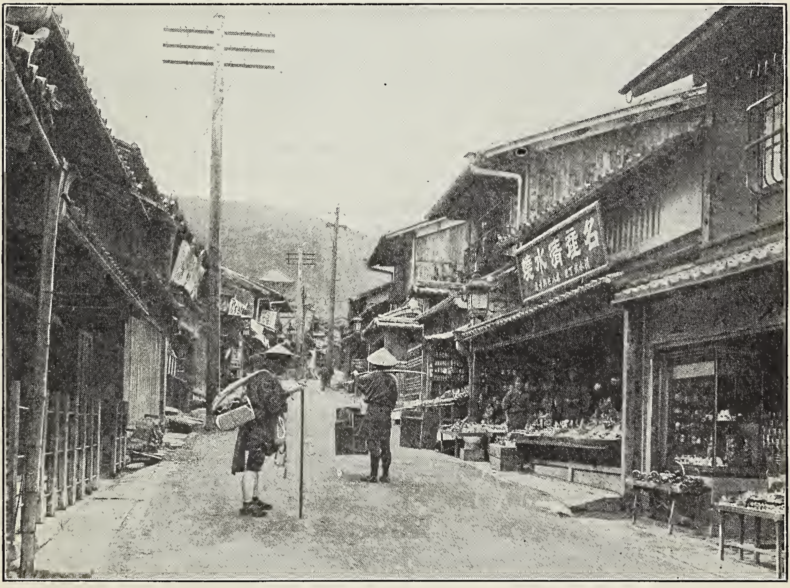

FIG. 230. In this street in Kyoto the shops, the signs on the shops, the people's dress, and their way of carrying things are all different from those we see in Western civilizations. The only things that remind us of an industrial civilization are the poles upon which electric wires are strung

Other countries stood in Japan's way in China

Russia, Great Britain, France, and Germany did not like the way Japan was seizing land in China. Russia herself wanted Manchuria and the Liaotung peninsula. She also wanted to build railways across Manchuria to connect Europe with the Pacific.

So Russia, Germany, and France united and compelled Japan to give back to China the Liaotung peninsula. They said this was no more than right. Japan could not afford a war with these countries; so she gave back the land.

Yet three years later (in 1898) Russia leased the Liaotung peninsula, including the ports of Dairen and Port Arthur, from China for 25 years. Germany, in the same year, seized Shantung. Great Britain took Weihaiwei. France took the bay of Kwangchowan and the islands in it.

Thus Japan failed to get the lands which she wanted on the coast and the mainland of China.

Japan defeated one of these European empires — Russia — in 1904

Japan resented having to give up land which went to her old rival, Russia. Although she could do nothing about it at the time, she prepared to settle the question later. The victory over China gave her confidence, and by making the people pay heavy taxes she got money to increase her army and navy rapidly. Finally, in 1904, she felt strong enough for war with Russia.

To the surprise of the world, Japan held her own against the vast Russian Empire. When peace was made, she demanded that Russia withdraw from southern Manchuria, give up her lease of the Liaotung peninsula, let Japan continue her operations in Chosen, and give to Japan half of the island of Sakhalin.

In 1910 Japan took full possession of Chosen

You have seen how in 1895 Japan forced China to give Chosen her independence, and how in 1905 she forced Russia to let her carry on her business there. In 1910 she went further; she took the whole peninsula and added it to her empire.

Japan, like other countries, got mining and factory privileges in China

Today Japan digs more coal in China than any other country. The amount which she produces is growing fairly rapidly. For some years she has mined coal especially in Shantung, near Kiaochow, in Weihsien, Chefoo, Ichow, and Tsinan.

The bar graph of figure 231 shows the increase in the amount of coal mined by Japan since 1891.

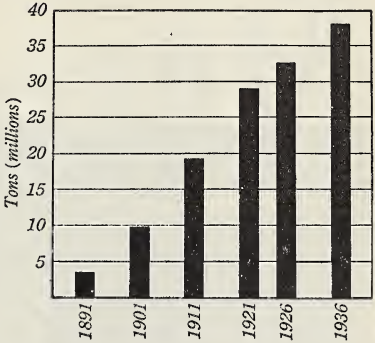

FIG. 231. The coal production of Japan. The rapid and steady increase of coal production shows how quickly Japan is becoming industrialized

Although Japan is the largest miner of coal in all Asia, the amount that she produces and uses is very small when compared with that produced and used by the great industrial nations. Whereas the United States mines more than 25 per cent of the world's coal, and Great Britain almost one fifth of it, little Japan produces not more than 4 per cent.

As we have seen, Japan had almost no iron. What did she do to get more? There was iron in Chosen, in Manchuria, and in China. These places are not farther from Japan than the French and Swedish iron mines are from England. The map of figure 51 (p. 85) shows where these chief deposits lie.

So Japan took iron regions in Chosen and in the Shantung peninsula. She also got permission from China to mine iron in what is now Manchukuo. The region near Hankow, China, especially the city of Hanyang, has become the "Pittsburgh of the Orient." Here, 800 miles in the interior of China, Japanese business men are developing great iron and steel works. In Manchukuo, in Chosen, and in Shantung also they are developing valuable industrial regions.

This seizure of raw materials reminds one of most Western countries. Japan, which was an isolated group of islands in the Pacific nearly 75 years ago, has indeed learned rapidly from the

Westerners. Not only has she taken up manufacturing, but in that short time she has also extended her power over other countries.

JAPAN BUILT A MODERN TRANSPORTATION SYSTEM

In old Japan travel was very difficult. Travel by water was not common, and most of the roads were poor. There were almost no bridges. People traveled on foot, on pack horses, or in a chair called a *kago*. Things were carried to market, as they are today in China, on the backs or heads of men and women.

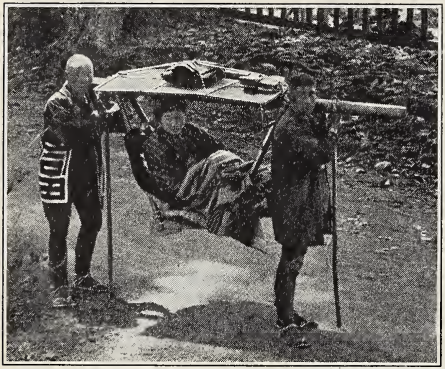

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FIG. 232. The *kago* was a popular means of transportation in old Japan

This was well enough when there were no great cities and when small quantities of food and other supplies were all that people needed to transport.

But as industries have grown up, and cities have increased greatly in size, Japan has built a modern transportation system. In 1872 the first railway, eighteen miles long, was built between Tokyo and Yokohama. Today there are 14,000 miles of railway, and new lines are constantly being built. Then, too, it is very difficult for engineers to build railways in Japan. Because of the mountains many bridges and tunnels must be constructed.

AS INDUSTRIES HAVE GROWN IN JAPAN THE POPULATION HAS INCREASED

For hundreds of years before Japan opened her ports to Western traders and went in for machine manufacturing, her population remained practically the same. But once modern industry began to take firm hold in Japan the same thing happened there that had occurred in England, Germany, and the United States — the population increased rapidly. In a little over 60 years Japan has practically doubled her population (see figure 233).

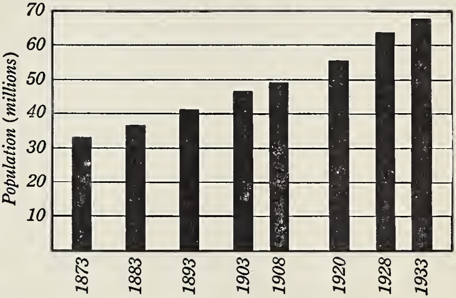

FIG. 233. The bars in this graph indicate the size of Japan's population in various years between 1873 and 1933. Notice the steady increase of the length of the bars

She has a population of approximately 70,000,000 in 147,000 square miles of territory — an average of about 470 people to the square mile. That does not seem very high compared with China until you look at the relief map and notice the many mountains in Japan. There, as you know, the population cannot be great. Remember that three fourths of the area of the country is mountains. Notice Japan in figure 17. In some places over 1000 people are found to the square mile!

A great part of this huge increase in population went into towns and cities. As the factories were built after 1870, the poverty-stricken people left their little farms and went into towns to work at machines. In Japan today there are 65 cities, each with a population of over 50,000. There are 27 cities in each of which more than 100,000 people live. Tokyo, with more than 6,000,000 inhabitants, and Osaka, with approximately 3,000,000, have become great industrial and trading centers.

Table IV of the appendix gives the population of the largest cities of Japan.

HOW IS THE GROWING CITY POPULATION FED?

In spite of the many people engaged in industry in Japan, more than half of the people still live on tiny farms. These farms occupy only one sixth of the land area. The entire amount of land under cultivation is only one half as large as the farming land of the state of Iowa. Each family has usually less than three acres of land from which to raise its food and to make a living. The Japanese farmers still use the old hand methods of farming which their fathers used and the ancient implements which they copied from China hundreds and hundreds of years ago.

Hardly a square foot of land on the farms of Japan is allowed to go to waste. If the land is on a hillside, it is carefully terraced, as it is in China. Walls are built up, making little fields for rice, tea, buckwheat, barley, or millet.

A story is told of a farmer who terraced his little hillside in no less than eleven terraces. He at last sat down on the top to rest and survey the successful results of his toil. To his dismay he could only count ten terraces below him. He counted again. Sure enough there were only ten. In haste he jumped up and counted them again. This time he found eleven. He had overlooked the top one before. He had been sitting on it.[1]

Japan gives us an excellent example of "intensive farming." Even more than the fine vegetable gardens of France, the rice fields of Japan require constant attention and handwork. Because the ground is so hilly the reapers and binders used in the American wheat fields are useless in Japan, just as they are in the Rocky Mountains.

So in Japan the contrast between the old way of doing and the new is very sharp. Her main island, Honshu, is excellently fitted for industry, yet it is also a prosperous agricultural section. The old agricultural life and the new industrial life of Japan provide an interesting study of two kinds of civilization going on side by side.

1. Rice, the main food of the Japanese people, is the crop of greatest importance

Japan lives on rice. Over half of her cultivated land is planted in rice, and the life of her farmers revolves around the rice seasons.

Rice is grown and harvested in Japan in much the same simple ways as in China. After the rice harvest is brought in, it is threshed — often by drawing the plants through the teeth of a rakelike implement. In the greater part of Japan a second crop (wheat or barley) is grown between the rice crops.

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[1] Walter Weston, *The Playground of the Far East.* John Murray, London, 1918.

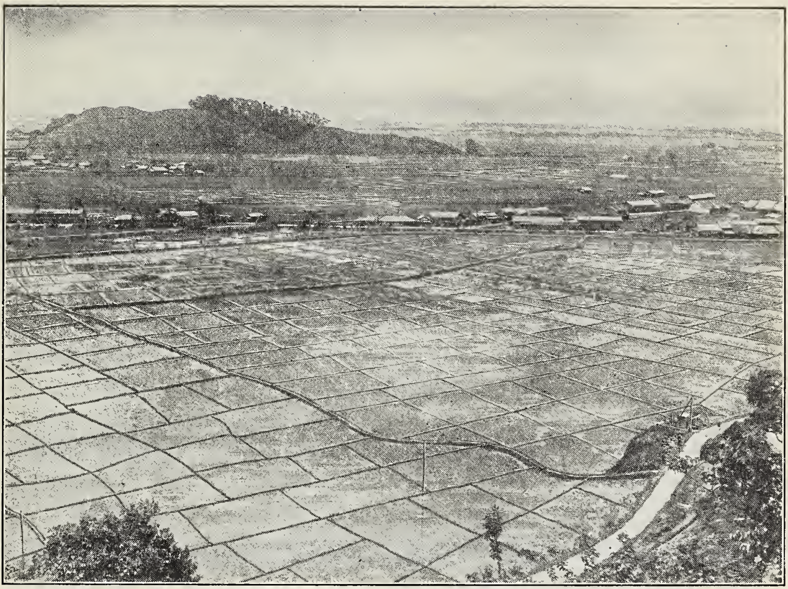

Fig. 234. Level rice fields of Japan. Notice the checkerboard design. The ditches are for irrigation, and they separate one man's land from another's

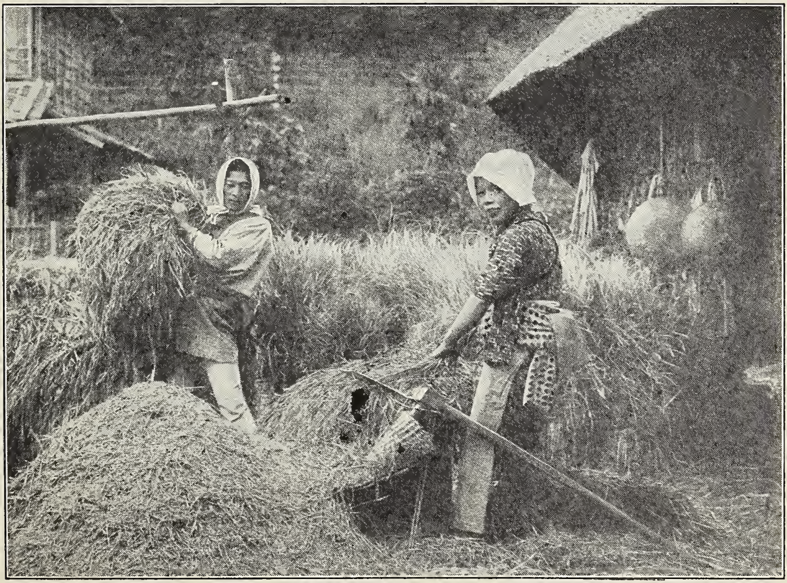

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Fig. 235. A rice harvest in Japan

The coming of each new rice year is marked by many ceremonies before the new rice is planted. The protection and help of the gods are then asked in order to make the next year a good one.

Japan has other important crops too. Barley and wheat are grown. But more rice is produced than both of these taken together. Just as rice is the *food* of Japan, so tea is the *drink*; hence tea is an important crop.

2. Fishing is an important industry in Japan

About 1,500,000 Japanese make a living by fishing. Their little boats go all along the coasts, in and out between the islands of the beautiful inland sea, and even away from Japan to good fishing grounds elsewhere. Most of the fish caught are used in Japan. Rice, fish, and tea — these three — furnish the principal diet of Japan.

But there are canneries which prepare the meat of the large Japanese crab so that it can be exported. Sharks' fins are sent to China, where they are prized as great delicacies. A bowl of shark's-fin soup is worth from two to five dollars.

3. Silk-raising is another very important occupation in Japan

Japan produces more than half of the raw silk of the world. China produces less than one fourth; Italy, one tenth. These three countries produce more than 90 per cent of all the world's silk. In Japan 1,000,000 acres of land are used for the raising of mulberry trees. About 2,000,000 farming families — over one third of the farming families of Japan — raise silkworms.

In the village shown in figure 229, for example, silkworms are raised in every home. There are many villages like this one, where "the honorable little gentleman" (the silkworm) is one of the most important members of the family. There are silk factories in Japan, in which silk cloth is woven by machinery; but most of the silk of the country is made by women and children in the homes of the people, especially in the homes of farmers.

The Trade of Japan Shows Another Contrast

Japan, then, is a rapidly growing industrial nation. On the one hand, her greatest export is an agricultural product, silk; on the other, — like France, Germany, and the United States, — she manufactures many industrial products.

Japan imports huge amounts of cotton and manufactures it into cloth in her own mills. Iron and steel and machinery, however, stand high on the list of imports. She depends on other countries for these.

Japan today is full of contradictions and of contrasts. In some ways she seems much like Great Britain; in other ways she seems utterly different.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT X

HOW THE HOME OF ANCIENT CIVILIZATIONS BECAME MODERN LATIN AMERICA

To this point we have studied changing civilizations in North America, in Europe, in Asia, in Australia and New Zealand, and even in Africa. One vast region remains to be considered — Latin America.

Latin America is the name given to the large territory extending from the southern boundary of the United States to the southern tip of South America. This tremendous territory includes the whole continent of South America and part of North America. In it more than 122,000,000 people are living in twenty independent republics. With this region and its people the American people are carrying on a tremendous trade. British and other European peoples depend upon Latin America for part of their living.

In our study of Latin America we shall seek to answer again the central question of our earlier studies, To what extent has European civilization spread in this region? We have seen how it spread after 1600 into other continents.

Now it remains for us to learn what has taken place in Latin America during these same centuries. In Chapter XXV we shall learn what the first Spanish explorers who landed there found. We shall discover how a continent inhabited only by Indians became the home of more than 122,000,000 people of many races and nationalities. In Chapter XXVI we shall learn why this great territory is called a continent of contrasts. In Chapter XXVII we shall learn the kind of civilization that this unusual region has produced in recent years. We shall seek to answer such questions as What kinds of people are living there? What is their standard of living? In what kinds of communities do they live? To what extent are they dependent upon the rest of the world? To what extent is the rest of the world dependent upon them?

CHAPTER XXV

LATIN AMERICA: HOW SOUTHERN EUROPEANS CHANGED INDIAN CIVILIZATIONS

The old world in "America," which Europeans discovered about 1500

Suppose for a moment that you are a young Spanish sailor in the early 1500's. You have heard tales from your mates of the trips of the great Italian navigator Christopher Columbus. You can remember that when you were very, very young the father of one of your playmates loved to tell how he made the first trip with the great sailor. All his family wept as they said good-by to him; they felt sure that they should never, never see him again.

You remember that most people thought that this Italian was slightly crazy and that he and his three little ships were bound to be destroyed. Yet did he not return, bringing with him some strange red men, whom he called *indios*, or natives of the Indies? Did he not say that he had found the flowering Spice Islands of the East Indies far off to the west of Spain? Then did not all your seafaring friends become eager to go on voyages to this fair, rich land?

Day after day you perch on an empty keg on the dock, dreaming of the wonderful Spice Islands. Once in a while ships come in, bringing news of other voyages undertaken and new lands found on the other side of the earth. Sailors tell that there is a whole continent beyond the islands found by Columbus. You watch and listen eagerly. You hear your friends gossiping of lands almost "paved with gold." They say that copper-skinned people inhabit lovely lands where dark-green palm trees line a white beach washed by a sea as blue as your own Mediterranean. You almost imagine that every mountain in the new land gleams with gold in the sunlight, and that precious stones hang like blossoms from every tree.

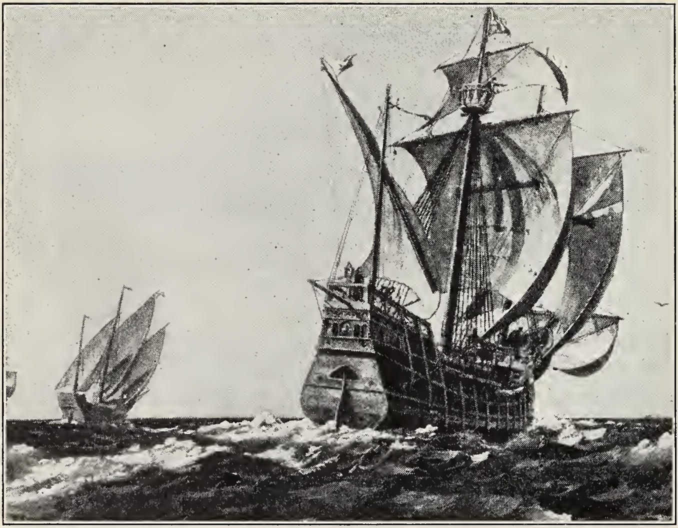

FIG. 236. Ships in the fleet of Christopher Columbus. (From a painting by M. Zeno Diemer)

You become so excited that you make up your mind that you too must be among the explorers of the New World. You long to visit these copper-skinned people. Perhaps you would like a bit of the quantities of gold found there.

Finally your chance comes. You learn that a ship is to sail soon under a navigator called Bartolomé Ruiz. You join the crew; and when the great day of departure comes you stand on deck, looking back at Spain for a time, then turn your face to the New World.

After two or three months of sailing over endless waters you sight land. It is the east coast of the new continent, later to be named South America. You land and stay there for a time. You find the land as warm and lovely as your own Spain. Although you never tire of watching the Indians and looking in wonder at their odd ways of living, Ruiz will not stay. He wants to go where there is gold. So you travel on westward until you reach a narrow isthmus called Darien (Panama). There you find many other Spaniards, who have made a settlement. You would like to remain for a while, but again Ruiz will not delay. You move on across the mountains until you see the great ocean that was discovered a few years before and named the South Sea.

There your captain buys a new vessel; for you were obliged to leave your good ship on the Atlantic coast. For several days you sail southward, never losing sight of land. After several days more of sailing Ruiz plans to land on a small island; but as the ship draws near, he can tell that the natives are unfriendly. Ruiz remarks that undoubtedly tales have reached them of the Spanish *conquistadores* ("conquerors"). There is nothing to do but to continue south. At length the lookout reports that there is a bay ahead. Ruiz orders the ship into the bay; and as you draw near you see a great throng of natives who show no fear or unfriendliness, only wonder. The ship glides smoothly into the crystal waters of the harbor. You go ashore; and the copper-skinned men tell you by signs that they believe that you and your companions are the fair gods who have come down from the skies.

Once more you set sail, however; for Ruiz has not yet satisfied his desire for new lands, and you have not yet found gold. Again you sail the deep sea, but before long you are amazed at the sight of another large vessel. You run to tell Ruiz. He is astonished at the appearance of a ship, for he feels certain that no Spaniard has ever yet sighted this land or sailed this sea. As the two vessels draw nearer and nearer, the men in your crew crowd forward. The ship is indeed a large one, with two masts in the middle bearing a large square sail. As the distance between your ship and the strange vessel lessens you are amazed to discover that the passengers are Indians, both men and women.

Some of them wear rich ornaments of gold and silver, and some are carrying precious articles with them. They are clothed in bright-colored garments of fine woolen cloth beautifully embroidered with figures of birds and flowers. In the boat are a pair of balances with which the Indians weigh their precious metals.

One of your sailors who can best understand Indian sign language learns from two of the strangers that close by there are fields where wool-bearing animals graze in great flocks and that gold and silver are almost as common as wood in the palaces of their emperor. As the message is repeated you glance at your companions. They are trembling with excitement. There is no doubt that they are longing to possess some of this precious metal. Your own cheeks burn as you think of the treasure awaiting your shipmates on shore. This new world is a magic world, and you are very fortunate to be one of those chosen to be its first visitors from Spain.[1]

The Old Civilizations of the "New World"

1. The Maya Indians

Although the navigators of the 1500's called America the New World, it was really a very old world, with some very old civilizations. There were perhaps 10,000,000 Indians scattered over the two Americas in many tribes.

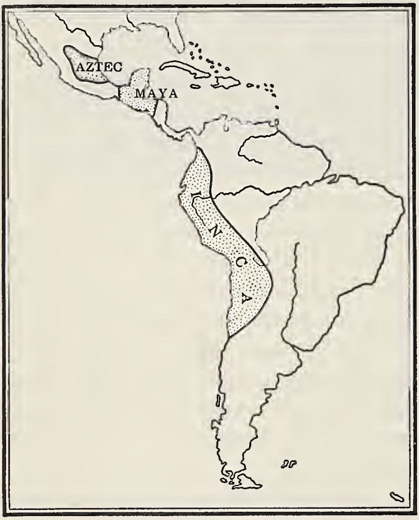

Fig. 237. What we know as Latin America today contained three civilizations which were already ancient before Europeans discovered the New World. The map shows where these people lived

Some of them were wild, warlike tribes, like those of North America. Others had learned to live in more settled ways. These planted and cultivated grains, and lived in cities. They had leaders or emperors, some of whom lived in great splendor.

In parts of Mexico and Central America the relics of fine stone cities, buildings for studying the stars, splendid temples, and palaces have recently been discovered. No one knows exactly how old this remarkable civilization is. However, special students called archaeologists have studied the ancient ruins and believe that they know its age fairly definitely. The earliest date that has been fixed is August 6, 613 B.C.

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[1] The facts used in this episode are from William H. Prescott's *Conquest of Peru* (J. B. Lippincott Company, Philadelphia, 1864), Vol. I, pp. 243 ff.

We can be sure that the Mayas, as these Indians called themselves, were living there hundreds, perhaps thousands, of years before that. Remember, therefore, that the Mayas had become an "advanced" people to such a high point that they studied the stars, had a system of writing, and well-organized governments long before 1492. They knew how to carve stone, to weave fine cloth, to make beautiful pottery and fine jewelry and feather ornaments.

Where this Mayan civilization began we do not know. Some scientists think it was in the mountainous region of what is now called Mexico. But no matter where it began, it is true that these Maya Indians had fine stone cities in the high mountains and even in the low jungles, between northern Mexico and Honduras. And this was at a time when most Europeans were living under very primitive conditions.

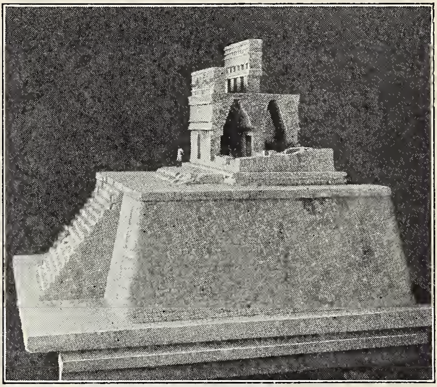


FIG. 238. A model of a stone building of the Mayan civilization. The great stone blocks remind one of the pyramids, constructed by another ancient civilization. (Courtesy of the American Museum of Natural History, New York)

2. The Aztec Indians

The Mayan civilization was only one of several ancient Indian civilizations in southern Mexico and Central America and South America. Historians and archaeologists have known for a long time that other important ones existed. One of the most important of these was that of the Aztecs, a warlike Indian group living farther north in Mexico than the Mayas.

When in the 1500's the Spanish adventurers sailed over to Mexico from the West Indies, they found that the Aztecs were a nation with armies, government officials, courts of justice, a well-developed system of agriculture, and many kinds of skilled workers. The Aztec rulers and feudal lords lived in buildings of stone. Next to them in power were the rich merchants. A great deal of trade went on within the empire. Caravans brought goods from great distances, each city had vast market squares, and money was used in exchange for goods.

Fig. 239. An example of Mayan stone carving. (Courtesy of the American Museum of Natural History, New York)

As in Europe and Asia, the common people among the Aztecs had to work very hard. They were heavily taxed by the emperors. There were many slaves among them who did the hardest muscle work. Most of these were prisoners who had been captured in wars with neighboring peoples.

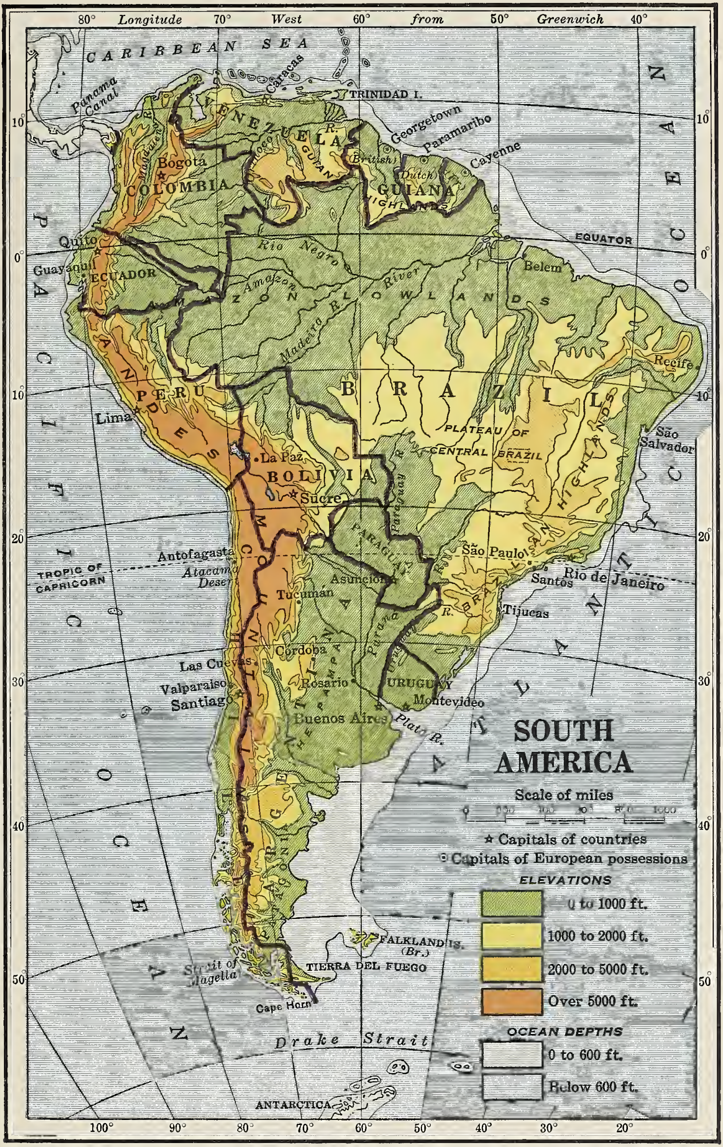
All the boys were trained to fight. When a boy was still a baby, he received a toy shield and a bow and arrow. Each girl received parts of a toy spinning wheel. The work of the women was to weave fine cotton garments and to do the housework. The men lived by fighting.

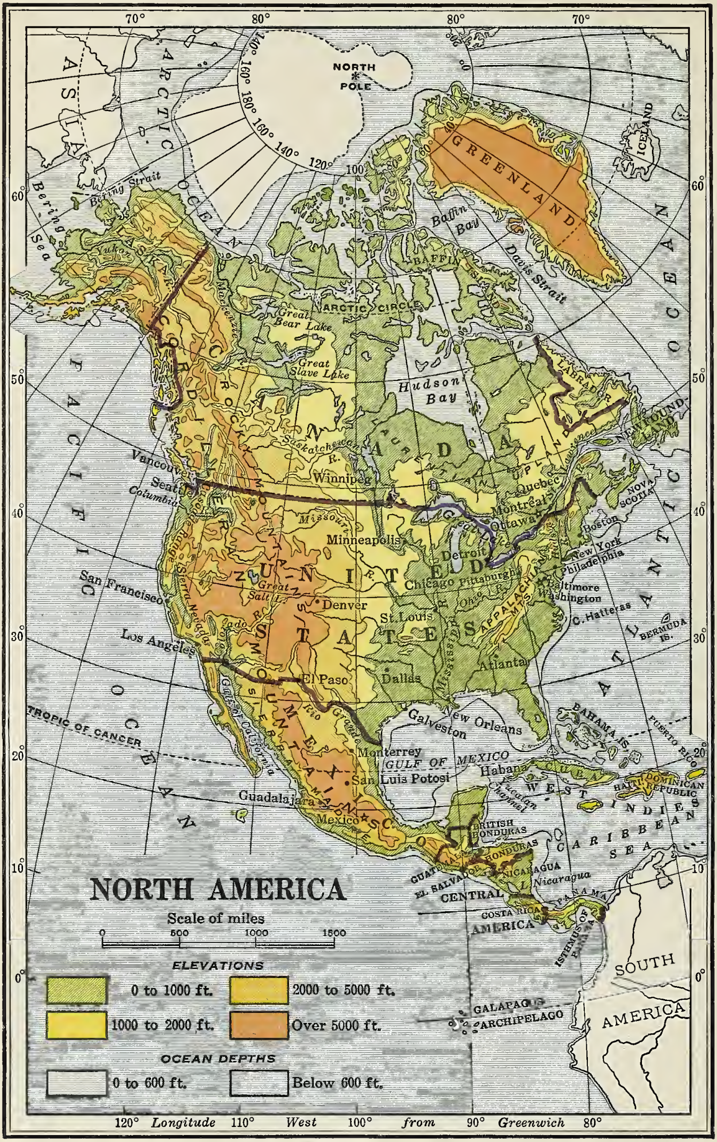
3. The Inca Indians

There was a third well-developed civilization which the Spaniards found in the New World, that of the Inca Indians. It was farther south than the other two, down in the Andes Mountains in South America.

The land of the Incas extended along the Pacific coast from what is now Ecuador south to include Peru and northern Chile. It also included the western part of Bolivia and the northwestern section of Argentina.

The Incas were not such great traders as the Aztecs. Neither did they use money to make buying and selling easy. When they wanted to trade, they bartered; that is, they exchanged goods.


SOUTH AMERICA
Scale of miles
0 200 400 600 800 1000
★ Capitals of countries
⊙ Capitals of European possessions
ELEVATIONS
🟩 0 to 1000 ft.
🟨 1000 to 2000 ft.
🟨 2000 to 5000 ft.
🟧 Over 5000 ft.
OCEAN DEPTHS
☐ 0 to 600 ft.
☐ Below 600 ft.
Longitude West from Greenwich
80° 70° 60° 50° 40°
100° 90° 80° 70° 60° 50° 40° 30° 20°
10° 0° 10° 20° 30° 40° 50°
CARIBBEAN SEA
PACIFIC OCEAN
ATLANTIC OCEAN
EQUATOR
TROPIC OF CAPRICORN
Panama Canal
Caracas
TRINIDAD I.
Georgetown
Paramaribo
Cayenne
VENEZUELA
Orinoco R.
GUIANA HIGHLANDS
(British)
(Dutch)
Bogotá
COLOMBIA
Magdalena R.
Quito
Guayaquil
ECUADOR
Rio Negro
Amazon River
AMAZON LOWLANDS
Madeira R.
Belem
Recife
BRAZIL
PLATEAU OF CENTRAL BRAZIL
BRAZILIAN HIGHLANDS
São Salvador
PERU
Lima
ANDES MOUNTAINS
La Paz
BOLIVIA
Sucre
Paraguay R.
PARAGUAY
Asuncion
São Paulo
Santos
Rio de Janeiro
Tijucas
Antofagasta
Atacama Desert
Tucuman
ARGENTINA
Cordoba
Rosario
Paraná R.
Uruguay R.
URUGUAY
Montevideo
Buenos Aires
Plata R.
PAMPAS
Las Cuevas
Valparaiso
Santiago
CHILE
PATAGONIA
FALKLAND IS. (Br.)
TIERRA DEL FUEGO
Strait of Magellan
Cape Horn
Drake Strait
ANTARCTICA


NORTH AMERICA
Scale of miles
0
500
1000
1500
ELEVATIONS
0 to 1000 ft.
1000 to 2000 ft.
2000 to 5000 ft.
Over 5000 ft.
OCEAN DEPTHS
0 to 600 ft.
Below 600 ft.
120° Longitude 110° West 100° from 90° Greenwich 80°
70°
80°
80°
70°
60°
50°
40°
30°
20°
10°
0°
NORTH POLE
140°
160°
180°
160°
140°
120°
100
0°
20°
ASIA
ARCTIC OCEAN
Bering Strait
Bering Sea
ALASKA
Yukon R.
Mackenzie R.
ARCTIC CIRCLE
Great Bear Lake
Great Slave Lake
GREENLAND
ICELAND
Baffin Bay
BAFFIN ISLAND
Davis Strait
Hudson Bay
LABRADOR
NEWFOUNDLAND
NOVA SCOTIA
CANADA
LAURENTIAN UPLAND
St. Lawrence R.
Quebec
Montreal
Ottawa
Saskatchewan R.
Winnipeg
Great Lakes
CORDILLERA
ROCKY MOUNTAINS
Vancouver
Seattle
Columbia R.
Cascade Range
Sierra Nevada
San Francisco
Los Angeles
Great Salt L.
Colorado R.
Missouri R.
Minneapolis
Denver
UNITED STATES
Detroit
Chicago
Pittsburgh
Ohio R.
Boston
New York
Philadelphia
Baltimore
Washington
APPALACHIAN MTS.
C. Hatteras
BERMUDA IS.
St. Louis
Mississippi R.
Atlanta
Dallas
El Paso
Rio Grande
Galveston
New Orleans
Gulf of California
SIERRA MADRE
MEXICO
Monterrey
GULF OF MEXICO
San Luis Potosi
Guadalajara
Mexico
BAHAMA IS.
PUERTO RICO
Habana
CUBA
Yucatan Channel
WEST INDIES
HAITI
DOMINICAN REPUBLIC
CARIBBEAN SEA
BRITISH HONDURAS
HONDURAS
GUATEMALA
EL SALVADOR
NICARAGUA
L. Nicaragua
CENTRAL AMERICA
COSTA RICA
PANAMA
ISTHMUS OF PANAMA
GALAPAGOS ARCHIPELAGO
SOUTH AMERICA
PACIFIC OCEAN
ATLANTIC OCEAN
TROPIC OF CANCER

Most of the Incas were farmers who worked together upon the land and shared equally in the harvest. One part of the harvest went into great granaries, where it was stored against possible future warfare or drought. A small part went to the sick or crippled — those who could not work. A portion was taken as a tax for the Inca, or ruler, and for the sun, which was worshiped as a god. The rest was divided equally among the farmers of the village.

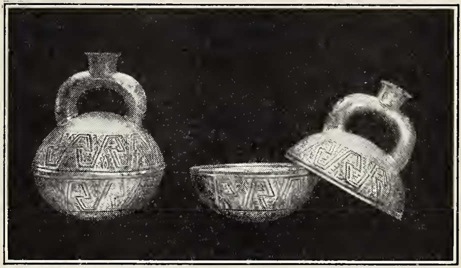


FIG. 240. Beautifully designed vessels were to be found in the rich land of the Incas. (Courtesy of the American Museum of Natural History, New York)

A few craftsmen were kept at work making ornaments, decorating utensils, and the like for the Incas and for the temples, or Houses of the Sun. Such beautiful things belonged only to the gods or to the rulers and their relatives. Only the rulers were allowed to have things made of gold and of silver. They alone had the emeralds and other jewels.

But although most of the people lived very simply, the civilization of the Incas was in some ways more advanced than that of the Aztecs. Historians tell us that the people were not so cruel; the rules of the government not so severe. There were excellent roads throughout the land. Bridges of rope made from tough young trees hung over the deep gorges of the mountains. Water was led through canals or aqueducts from the mountains to the plains. Thus in seasons of little rainfall the fields could be irrigated.

The Incas had a system of weights and measures. They kept accurate records by means of knotted strings, each knot standing for a certain number. They could add and subtract large sums by using these knotted strings. A count, or census, of all the population was taken at certain times, so that the government could decide many matters about taxes.

The capital of the empire, at Cusco in Peru, was a city of many beautiful temples. These buildings were made with great blocks of stone so carefully cut and fitted together that it was difficult to slip the blade of a knife between them.

We do not know exactly what tools the Incas used in building their palaces and city walls. Scientists are sure that they knew how to combine copper and tin to form the alloy bronze, a very hard metal. It is likely, then, that they worked with bronze tools in cutting the great blocks of granite and another rock called porphyry. Their weapons and knives, however, were of stone.

The only beasts of burden that they had were llamas, which they had tamed to work for them. There were no horses in either North or South America until the Europeans brought them. Human muscles had to do practically all the work.

European Adventurers Plundered the Gold of the Americas and Made Slaves of the Indian People

Between 1503 and 1580 the Spanish conquerors went to South America with their fighting vessels and their armed men and seized the lands of the Indians all the way from Mexico to Chile. They conquered the Aztecs. They conquered the Incas. Though the Inca ruler treated them with kindness, they captured and later killed him. By 1580 the Spaniards had explored and robbed a vast region. From what is now Mexico, down through Ecuador, Peru, Bolivia, Chile, and great areas of Argentina, they had pressed their way, always after great fortunes and cargoes of gold.[1]

While the Spaniards were busy in the northern and western parts of Central and South America, Portuguese explorers and freebooters (pirates) were conquering the great coast land of Brazil on the east coast and farther south. They made settlements as early as 1532, and in a few years divided the whole coast of what is now Brazil into twelve "captaincies."

Therefore, even before the English had made colonies on the Virginia (1607) and Massachusetts (1620) shores, there were thousands of Spaniards and Portuguese ruling a huge empire in the New World. This empire extended not only over most of South

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[1] The story of all this is in Prescott's *Conquest of Peru* and *Conquest of Mexico*. These books can be found in almost any library. The story they tell of conquest and adventure is an interesting account of how empires grew in the 1500's and 1600's.

America and up through Mexico, but even into parts of North America now included in the United States. Even today one can see the old forts and missions of the Spanish settlements in California, Texas, and Florida. For 200 years — indeed until after 1800 — Spain and Portugal controlled this huge region as rulers over the Indian peoples.

It is important to remember that the Spaniards and Portuguese who settled Central America and South America in the 1600's and 1700's lived a very different kind of life from that of the European settlers in North America.

A great many of the European colonists who settled our own country were farmers, at least until after 1850. The Spaniards, however, were not interested in farming; they came for precious metals. They dug in the ground for them. They hunted for them in the homes and public buildings of the Indian people they conquered. They robbed the Indian temples. They seized the Indian gold and silver mines. Peru, Bolivia, Colombia, and Mexico were the richest treasure houses on the earth, and it is estimated that even as early as 1700 the Spanish took between $30,000,000 and $40,000,000 worth of silver a year from these mines. They made slaves of the native Indians and forced them to dig out the metals.

LATER EUROPEANS CAME TO LATIN AMERICA FOR BUSINESS

Until the 1600's the Spaniards kept all other Europeans away from Latin America.[1] The French sea captains and the English sailors kept away from the Spanish ports.

Not that a Spanish shipful of gold was safe on the seas! Far from it! Though the ships usually traveled in groups for safety's sake, they did not always get past pirates who waited for them on the high seas. Often bold French or English ships captured the Spanish vessels and robbed them of their treasures. But it was seldom, indeed, that other countries interfered with Spain's rights on the land.

In the 1700's, however, Spain lost the power to prevent other countries from entering South America and Central America. The Spanish rulers had spent gold so freely and extravagantly and their country had become involved in so many expensive wars that Spain was forced to borrow more than she could pay back. Italian and German bankers, to whom Spain owed these sums, demanded land grants in the New World instead of money, and Spain had to give them.

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[1] Because it was governed so long by Latin people — Spanish and Portuguese — who introduced their customs and languages, we speak of all the territory from the northern border of Mexico to the southern tip of South America as Latin America.

In 1728 the officials of two German banks made a written agreement or contract with the king of Spain which allowed them to take Negro slaves and German miners into Latin America. These miners were to aid and instruct the Spaniards in developing the mines. For nearly 200 years metal had been dug from the surface of this land; and by the early 1700's this surface metal was almost all gone. In fact, the Indian laborers who worked for the Spanish did not know how to mine gold and silver which was deeper in the earth; but the German miners did. The Negroes whom they brought were better able to stand work in the mines than the Indians had been. Moreover, many Indians had died of hard labor and disease under the rule of the Spaniards, and the number of laborers was running so low that it paid to bring Negroes all the way from Africa.

The Europeans Learned Much about Agriculture from the Indians of South America

Long before the Spaniards found them, the Indians had learned how to plant and raise certain crops which people in other parts of the world did not know about. They had learned how to plant corn (maize). This knowledge was passed around from tribe to tribe and spread all through North America and South America. The Europeans learned it from the Indians.

The Mayas also knew how to raise sweet potatoes, white potatoes, squash, pumpkins, cacao, tomatoes, peanuts, and tobacco.

So the Spaniards found not only gold and silver but also many new kinds of food and other agricultural products. After the richest deposits of gold and silver had been taken, many of the Spaniards and Portuguese settled down and developed large farms and ranches. Others spread the knowledge of the new crops in Europe, and people there began to plant them in large amounts. For example, Europe today is the world's great potato region.

The Indians taught the Europeans how to raise cotton, henequen (or sisal hemp), and other fiber plants. The importance of cotton had been known for centuries, but the Spaniards had never grown it in their own land. Sisal hemp was not important at the time, but it became so after the Industrial Revolution. Sisal fiber is one of the few things known which can be used successfully for binding-twine. Without it reaping machines would be unable to tie wheat into neat bundles, and much of the work of the great harvesting machines would be impossible.

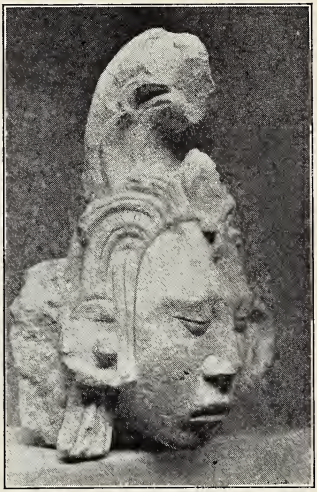

FIG. 241. The god of maize of the South American Indians. (Photograph by Professor Clarence R. Kennedy, Smith College. Courtesy of the Peabody Museum, Cambridge)

The Indians also used the product of the rubber plants long before the Europeans discovered them. One of their tribes was called Olmeca, "the rubber people." One record from Guatemala, dated 1540, says that rubber was being used to varnish boots, capes, and other objects to make them waterproof, and to make tennis balls.[1]

There is no doubt that the Indians of South America taught the Europeans much about agriculture.

IN 1800 LATIN AMERICA WAS A MIXTURE OF PEOPLE LIVING UNDER TWO GREAT EMPIRES

By 1790 all the newly discovered land from Mexico south to Cape Horn was claimed by two small European nations, Spain and Portugal.[2] The map of figure 242 shows which part of the region belonged to Spain and which to Portugal. Rulers were sent by the kings of these two countries to govern the huge territories of Latin America. Each governor ruled a territory many times larger than that of the home country itself.

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[1] *Scientific American*, April, 1928, p. 332.

[2] Spain also claimed great tracts north of Mexico, but in this volume we are concerned only with those countries which adopted her civilization.

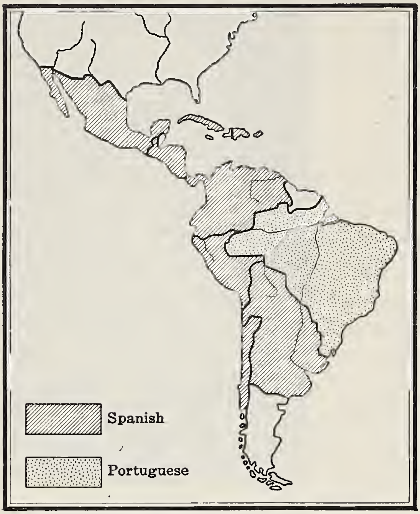

FIG. 242. By 1790 Spain and Portugal had divided between them all the land of the New World which has been shaded on the map

In these lands there was a strange mixture of peoples — Indians, Negroes, and Europeans. Most of the people were Indians, some of whom, under the rule of the Europeans, lived a somewhat settled life and carried on a crude kind of agriculture. In the mountains all the way from central Mexico to Peru were the remains of highly civilized peoples like the Aztecs and the Incas.

But the old civilizations had been almost destroyed, and the descendants of the once proud races had sunk very low under Spanish and Portuguese rule. People who had once been free became little more than slaves. Their proud spirit was broken. Furthermore, the Negroes who had been brought from Africa had married Indians, Spaniards, and Portuguese and had produced all sorts of mixed peoples.

Most of the Spanish and Portuguese men, unlike the British, Dutch, and Swedish men who settled North America, had not brought wives with them from Europe. Instead they married women of other races, and the result was that Latin America became a complicated mixture of people and races.

We do not know how many people there were in the huge lands controlled by Spain in 1783. It is believed that there were more than 12,000,000 and probably less than 20,000,000. How many of these were whites? Again we have no sure knowledge, because the census was never taken. But it is doubtful if there were more than 3,000,000 or 4,000,000 white people in this entire region.

The Portuguese controlled Brazil. The mixture of people in Brazil was much like that in the Spanish possessions. It is believed that in 1783 there were in Brazil probably 3,000,000 inhabitants. These included all the races — Indians, Negroes, European whites, and the mixtures of Indian and white, Negro and white, Indian and Negro, plus many other combinations. Probably there were between 15,000,000 and 25,000,000 people in all the continent. Yet how vast was the continent!

The Colonies of Latin America Were Thus Very Different from Those in North America

It is hard to believe that in a continent where there were thousands upon thousands of miles of unexplored land there was not a good living for everybody. But such was the case.

The Spanish lords owned domains so large that often they never traveled to the far-off boundaries of their estates. They had at their command a great number of people to work for them. They raised remarkable crops and vast numbers of horses (which they had introduced into the country), cattle, and sheep. Their great estates became even more valuable than the mines they had once dug so eagerly.

The Spaniards did not work; it was the peons, or peasants, who produced the valuable crops on the farms and who dug the mines. They were not actually slaves, however. The Negroes were the slaves. The peons, like the serfs of the Middle Ages, were neither slaves nor free men. They lived on the outskirts of the Spanish estates on little plots of poor land, in huts of mud or grass. They received very small wages and were little more than beasts of burden. Thus, though the continent was thinly populated and though great areas were still unexplored, many people were living in miserable conditions.

Until the 1800's this great system of landlords and servants continued in Latin America. It was far from the center of the Western world in Europe. It was a world off by itself, almost as untouched by the changing events in Europe as Japan or China.

Travel was difficult, communication was slow, and people had little means of keeping in touch with the outside world or even with one another. It was as if the people of Latin America were in a back yard, fenced off with tall boards, beyond which they could not see the exciting events in the rest of the world. In this way the old rule kept up in South America even after the Spanish and Portuguese rulers at home lost most of their power.

Between 1810 and 1826 the People Revolted against Spain and Portugal and Set Up Many Little Independent Republics

The period between 1775 and 1800 was a time of revolutions both in Europe and in North America. The American colonies rebelled against England between 1775 and 1783 and formed our own country, the United States of America. The people in France also revolted against their rulers and in 1792 formed a republic with a more democratic government. The idea of "liberty for all men" was spreading throughout the Western countries.

The Spanish governors, fearing that news of events in North America and in France would start revolutions in their own Latin American colonies, tried to keep the news from their people. Newspaper articles which described them were barred out, and in many other ways words of the new rebellions was kept from the people.

In spite of their efforts, however, the news spread. European and American newspapers wrapped around cheese, fish, and other things were smuggled in. The American Declaration of Independence, translated into the French language, found its way into Spanish America. Travelers who had visited the United States returned to Latin America with thrilling stories of the new government. Steadily the spirit of revolution spread among the Spanish Americans.

By 1810 the government of Spain was in serious difficulties. The king had been put off the throne, and the nation was in the hands of a foreign ruler. The Spanish people would not accept the new ruler. It was a time of great unrest, and a period in which the power of the Spanish government was very weak.

The leaders of the people of Latin America saw the difficulties their masters were facing and felt that it was an excellent time to strike for independence. In 1810 revolutions began in widely separated parts of Latin America — in Mexico, in Venezuela, and in Argentina. Gradually the people of other regions joined the revolutionary bands.

Three men led the revolt — three men who are remembered in South America as heroes of the revolution — Miranda and Bolivar of Venezuela, and San Martín of Argentina. Miranda was the leader under whom the people of Venezuela threw off the rule of the Spaniards. Bolivar also helped to bring about Venezuela's freedom, but his services helped to free other parts of Latin America as well, especially Colombia, Ecuador, Bolivia, and Peru. San Martín led the revolt in Chile, and as it spread he aided the Peruvians also.

These revolutions went on in several regions at once. The leaders of one region helped those of another. In addition, many people from European countries themselves went to Latin America and helped the leaders of the revolution both on land and on sea.

For sixteen years the fighting went on. Finally, by 1826, Spain's governors were driven out of both North America and South America. Cuba and Puerto Rico alone remained loyal to Spain.

As a result of these revolutions eight new independent states arose — Paraguay, the United Provinces of the River Plata (which later became Argentina and Uruguay), Chile, Great Colombia (which later split into Ecuador, Venezuela, and Colombia; much later Panama split off from Colombia), Peru, Bolivia, Mexico, and the Central American Federation. The Central American Federation, however, held together for only twelve years. In 1838 it split up into five little independent republics — Guatemala, Honduras, Nicaragua, El Salvador, and Costa Rica. Later two other little republics were added to the list. In 1844 Santo Domingo became the Dominican Republic, and in 1901 the republic of Cuba began its life.

So much for the story of the break-up of the great Spanish empire in Latin America. What about the Portuguese empire of Brazil?

The history of Brazil is very different from that of the Spanish republics. Brazil was by far the largest of the Latin American states. It had belonged to the Portuguese since the early 1500's. The people there spoke Portuguese and were subjects of the king of Portugal. But for many years they had been dissatisfied with his rule.

Portugal, fearing that Brazil might join the revolution of the Spanish countries, made great efforts to hold Brazil by making it a joint kingdom with the mother land. For a while the king of Portugal lived in Brazil. When he went back to Portugal he left his son in Brazil with a hint that if the Brazilians were determined to be independent, he should take Brazil for his own kingdom. In 1822 the son proclaimed himself Emperor of Brazil and gave the people of Brazil certain rights under a new constitution. Thus a kind of "revolution" took place without bloodshed.

For nearly 70 years the independent empire of Brazil continued. Steadily, however, the democratic spirit grew. The Brazilian people became more and more dissatisfied with the emperors. Steadily the leaders of the people got more power. Finally, in 1889 they were strong enough to expel the royal family. At last Brazil too was a republic.

A LONG PERIOD OF TYRANTS FOLLOWED THE REVOLUTIONS OF 1810–1826

After 1826, when the eight new independent Spanish republics were formed, there was no end of trouble. The revolutions had by no means settled the difficulties of the people of South America, who were not ready to rule themselves successfully. Various kinds of governments were tried with little success. The result was many civil wars and revolutions within the various countries.

In several of the countries of South America and Central America "dictators" arose. A dictator is an absolute ruler who takes the entire government into his hands. Within the past 100 years the 20 republics of Latin America have frequently been ruled by dictators. During these times the government was in the hands of a single man and his loyal soldiers. When this occurred the people frequently lived in as great terror for their lives as they had under Spanish rule.

In later years, however, most of the dictators were overthrown by uprisings of the people. This happened as a larger number of people received an education, and took a greater part in government. Thus the spirit of democracy slowly spread in Latin America.

Some people have hoped that the republics of South America and Central America would join together in a sort of "United States of Latin America" under one central government. The idea was suggested by the success of the government of our own 48 states — the United States of America. Thus far, however, the peoples of the Latin-American states have felt so loyal to their separate countries that the dream of a central "United States of Latin America" is far from becoming a reality.

The story of Latin America is another chapter, therefore, in the story of the spreading of Europeans over the earth. Today this territory includes 20 independent republics.

What kinds of countries has this new combination of peoples produced in South America? Are they great manufacturing countries like the United States and Great Britain, or are they rice-and-cotton-growing countries like India or China? Are they changing as are most of the other civilizations of the world? These questions we shall try to answer in the next two chapters.

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CHAPTER XXVI

SOUTH AMERICA: A CONTINENT OF CONTRASTS

A great continent, which has a fringe of trading and manufacturing cities and a vast primitive interior

From Venezuela to Tierra del Fuego the traveler in South America meets one contrast after another.

At the equator, high in the Andes Mountains, he shivers with the Indian shepherds. A few hours of travel bring him into tropical valleys, where he swelters in jungle heat. Farther south, on railway tracks 15,000 feet above sea level he crosses high mountains into broad plains where immense herds of cattle graze and 10,000-acre estates ripple with wheat. He wanders over the plains for days, encountering only a few rude Indian villages.

At last he reaches the east coast and finds himself in a great, rich, modern city — Buenos Aires, the city of millionaires. A sail of a day and a half northward brings him to broad rivers navigable for thousands of miles. In the interior of the continent he finds a vast unpeopled and unexplored jungle.

South America is a continent of contrasts, a continent of countries in the making.

An interesting example: a thriving modern city and a tropical jungle in the same country

Let us look at the tropical city of Rio de Janeiro, a beautiful port city of over 1,500,000 inhabitants. The first thing that the traveler sees as he enters the bay is Sugar Loaf Mountain, behind which other jagged green mountains group themselves. Fringing the city there are a number of small semicircular bays, where fine boulevards have been built along the shore. Rio de Janeiro is a city of rare beauty. It is a modern city with street cars, automobiles, clean, broad, paved streets, and good hotels. Handsome buildings of the business section line the wide boulevard called Avenida Central. It is a cosmopolitan city, where travelers and traders from all parts of the earth mingle.

Far to the north and west of Rio de Janeiro, but still in Brazil, is the great South American jungle, through which the broad Amazon River flows, — 200,000 square miles of unbroken country inhabited only by small numbers of almost unknown Indians. From the summit of a low hill at night the traveler may gain some idea of the jungle. Behind him, before him, and to every side stretch the Amazon forests, seemingly endless in the blackness and quiet of night. When day comes the river turns pale yellow, and a thick mist rises from it. Then the air clears, and everything appears a vivid green. Trees, trees, and more trees! Vines, vines, and more vines! A thick swarm of insects surrounds the traveler. (Woe unto him if he has not covered himself with copaiba oil, for he is sure to be bitten by some malarial insect!) Beautiful butterflies flit from bough to bough of the thickly intertwined trees and vines. At sunset the chatter of monkeys and of parrots and thousands of other birds dies away. The call of the jaguars is still. A cool evening breeze rustles in the tropical foliage.

The Relation of South America to the Rest of the World

Before we study this strange continent, let us notice carefully how it is located (see figure 245).

From your study of the map, should you say that South America is in a favorable location for trade with the three centers of the world's densest population — the great masses of Asiatic peoples, the industrial countries of western Europe, and the United States?

Notice on the map one rather astonishing fact about South America. *The westernmost point of South America is almost exactly south of Florida.* The eastern port cities, such as Rio de Janeiro and Buenos Aires, are nearer to Africa and Europe than they are to New York. From Rio de Janeiro to Spain is less than 4000 miles. From Rio de Janeiro to New York is 4770 miles. From New York to Valparaiso in Chile, through the Panama Canal, is 4589 miles, 1332 miles less than the distance from New York to Buenos Aires. Make other comparisons of distances between Europe and North America, Europe and South America, and Africa and South America.

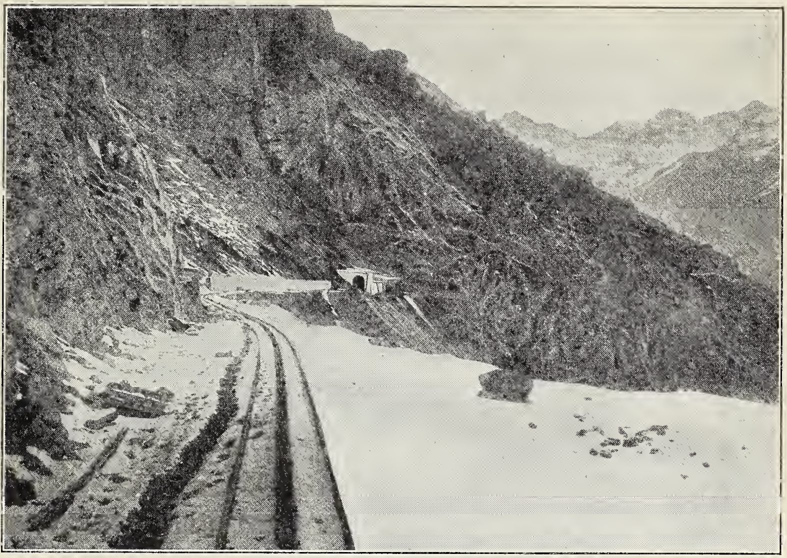

FIG. 243. Railway-building is difficult in many parts of South America. Either steep mountain passes must be crossed or tunnels which pierce the mountain must be made

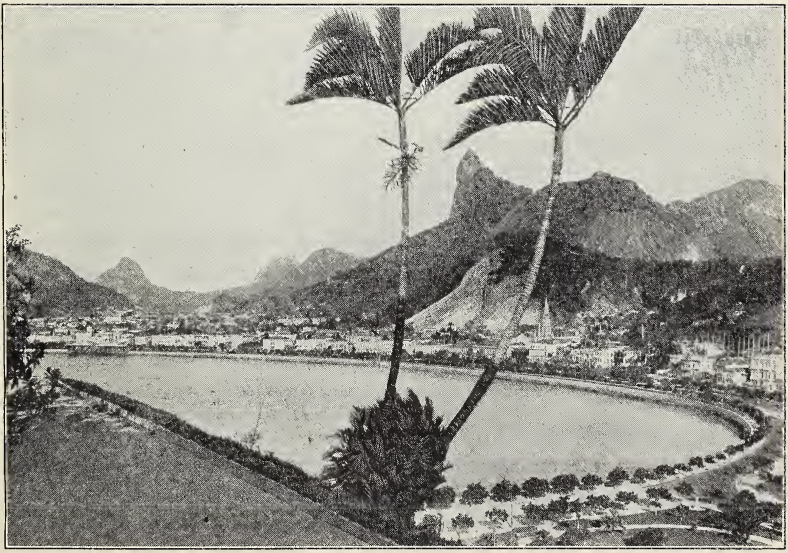

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FIG. 244. The beautiful modern city of Rio de Janeiro lies in a bay on the seacoast of Brazil. It is sheltered by tall mountains from hundreds of miles of jungle land in the interior

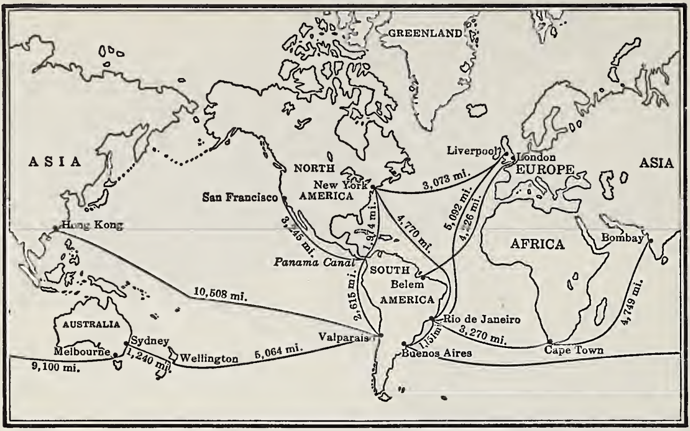
GREENLAND
ASIA
NORTH AMERICA
New York
San Francisco
Hong Kong
Liverpool
London
EUROPE
ASIA
3,073 mi.
5,092 mi.
4,26 mi.
4,770 mi.
1,974 mi.
3,245 mi.
Panama Canal
SOUTH AMERICA
Belem
AFRICA
Bombay
4,749 mi.
10,508 mi.
AUSTRALIA
Sydney
Melbourne
1,240 mi.
9,100 mi.
Wellington
6,064 mi.
Valparais
2,615 mi.
Rio de Janeiro
3,270 mi.
1,15 mi.
Buenos Aires
Cape Town

FIG. 245. The sailing distances between the principal ports of South America and some of the great world ports

Notice also that most of South America is in almost the same latitude as the southern half of Africa, all Australia, and Netherland India. These are *the lands of south latitude.* Most of South America is below the equator. It extends from about 10° north latitude to about 55° south latitude. North America, northern Africa, Europe, and Asia are the lands of north latitude.

THE CONTINENT ITSELF: WHAT KIND OF LAND IS IT?

If you turn to the Appendix, Table II, you will notice that South America is the fourth largest of the continents. It is less than half as large as Asia, slightly more than half as large as Africa, and about seven eighths as large as North America. However, it is nearly twice as large as Europe, and more than twice as large as Australia.

The highlands of South America

As you study the map following page 512, you will notice a long range of mountains running like a backbone from north to south through almost the entire continent. These are the Andes, one of the highest mountain ranges in the world. They are much higher than the Rockies — so much higher that, by comparison, some of the summits of the Rockies would seem little more than foothills. They are so high that until recent years it has been extremely difficult to cross them in traveling from east to west in South America. There is no pass in the Andes between northern Peru and central Chile which is less than 11,000 feet in height.

Are there other mountains besides the Andes? Where are they?

There are very few railways throughout South America, owing partly to the tremendous difficulty of crossing the Andes and of connecting the east with the west. There is one line running from east to west which connects Argentina with the coast of Chile, but at present the section which crosses the Andes is not in use. A few years ago it was damaged by floods.

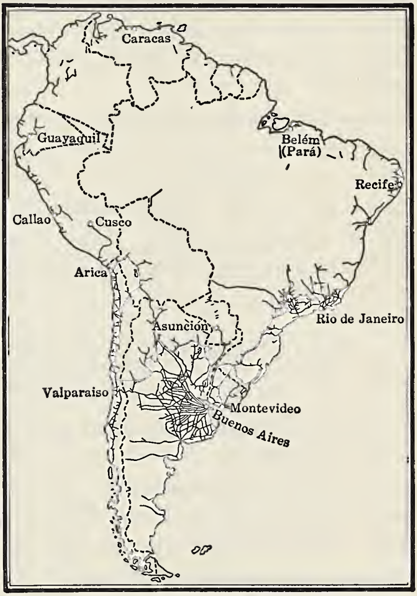

FIG. 246. The principal railways of South America. How do the railway lines of South America differ from those of the United States, Europe, and Asia?

The map of figure 246 shows that most of the railroads are in the lowland region of Argentina. Notice also the long railway which extends from southern Peru to southern Chile.

The lowlands of South America

The lowlands are the valleys of great rivers. On the map following page 512 look at the Orinoco, Amazon, and Paraná rivers, each with its great branches. Notice also the many smaller rivers.

Boats can travel on the Orinoco for 900 miles. They can sail on the Amazon itself for 2300 miles and, counting its branches, for 27,000 miles. The Paraná, with the Uruguay and Paraguay rivers, forms a great and important river system called the Plata River. Notice that the sources of all the important rivers of the Plata lie very near to the Amazon system. How can you explain that fact from what you know of geography and "lay of the land"?

Jungles border the Amazon, the Orinoco, and their many branches. The dense growth of trees, shrubs, vines, and the like makes it as difficult to travel here as it is in the mountainous region in the west. On the colored map the height of the land of South America is shown. From it you can gain some idea of the problems which men have to solve in settling South America.

SOME UNEXPECTED FACTS ABOUT HEAT AND COLD IN SOUTH AMERICA

Marjorie was packing her trunk for a trip to South America. It was June.

"Marjorie!" I exclaimed. "A winter coat in June! You won't need a winter coat in June. What! A parasol and a bathing suit too! How on earth are you going to be able to wear winter clothing and summer clothing?"

"Don't be silly," said Marjorie; "you don't go only by seasons in South America. The weather goes by ups and downs. When you're up, it's winter. When you're down, it's summer."

"Up what?" I asked.

"Why, up the mountains. Didn't you know the second highest mountains in the world are in South America? They are so high that on the top of them it's always winter. When we go to Bogotá in Colombia, I'll carry my parasol in the morning and wear my toboggan cap in the afternoon."

"Yes," I said; "and pick flowers in the snowdrifts."

"Why, yes; won't it be fun? How did you guess?" she exclaimed.

At this point I gave up. South America must be a funny place!

Where are the hot regions of South America?

Do you know that the hottest regions of South America are near the equator in the *northern* part of the continent, that is, in the valley of the Amazon? *Colder* regions are found at the most *southern* point of South America, near the Strait of Magellan. *Thus in South America the hot regions lie to the north and the cool regions to the south.*

Is it ever cold at the equator?

But the really astonishing thing about South America is that distance up and down in the air makes more difference in the weather than distance north and south. It is much colder in the mountains near the equator than in the valley of the Paraná River. Even Uruguay, which is in the southern half of the continent, has a climate as warm and mild as that of Italy or California.

Bogotá, the capital of Colombia, is situated high up in the mountains. Notice on the map how near to the equator it is. There, except in the sunshine, the air is very cold even at noon. However, people never heat their homes, and in the evening the cold is almost unbearable. At night the people of the city wear overcoats and furs the year round, so that this city so near the equator has quite the appearance of an American city in early winter.

However, if one descends the mountains to sea level, he comes upon fields of sugar cane and hot jungle land.

In South America the seasons are reversed

Another surprising fact about South America is that the coolest months are June, July, and August, and the warmest are December, January, and February. In the southern regions of South America people begin to think about winter clothing in May; they wear their lightest clothes in January. Buenos Aires, which is in the southern part of South America, has a very even temperature throughout the year, averaging 63°; hence there is no real winter there. The winter months from May to September are very mild. In the coldest days of July or August the temperature seldom falls below freezing, and snow comes very rarely.

Even farther south than Buenos Aires, in the plains of Patagonia, cattle and sheep can graze outdoors the year round, for the winters are short and mild.

Can you explain why the seasons are reversed in South America?

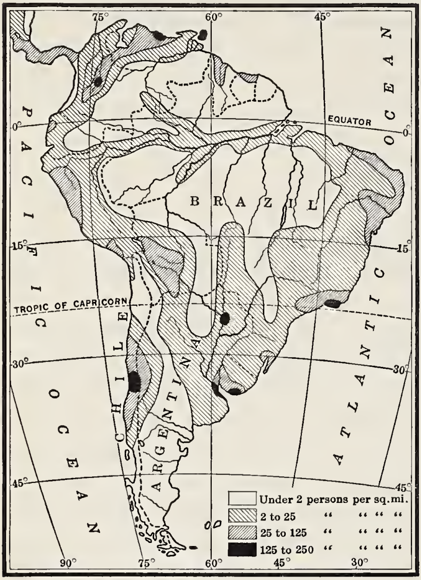
75°
60°
45°
ATLANTIC OCEAN
EQUATOR
0°
PACIFIC OCEAN
BRAZIL
15°
TROPIC OF CAPRICORN
CHILE
ARGENTINA
30°
45°
90°
75°
60°
45°
30°
Under 2 persons per sq.mi.
2 to 25 " " " "
25 to 125 " " " "
125 to 250 " " " "

Fig. 247. The density of population in South America. Compare this map with figure 199. What differences do you see?

The People of South America

Where are the people living?

According to the most recent estimates there are only about 93,000,000 people in all South America. This is a little more than two thirds the number of people in the United States and but one sixth of the people of Europe.

On the population map of figure 247 you will notice that the people live chiefly in a few regions on or near the coast. About 70 per cent of the population live in the southeastern part of the continent. Nine tenths of the people of European descent live in Brazil, Uruguay, and Argentina.

Brazil itself contains half the people of the continent. But nearly the entire population of Brazil — about 48,000,000 — live along the Atlantic coast and in the rather thickly populated southeastern La Plata section. In the interior of the continent there is not even an average of one person to the square mile. Why is this true? What other regions of the continent do not attract people? Why?

What races make up the South American people?

We have already read the story of how, 400 years ago, the Spaniards found the South American continent with its several million Indians. As these and more white men came in the early 1500's they brought with them large numbers of Negro slaves to do their work. Before long the Europeans and Negroes were marrying the Indians, and several mixed groups of people appeared. These were the *mestizos,* who were a mixture of Indian and Spanish blood; the *sambos,* who were a mixture of Indian and Negro; and the *mulattoes,* who were a mixture of Negro and white. Of course the mestizos, the sambos, and the mulattoes intermarried too, so that today a large part of the population of South America is of the mixed blood of three races.

The people of the different races are divided as follows:

1. About one fourth of the people are white (approximately 23,000,000).
2. About one fourth of the people are Indian or Negro (approximately 23,000,000).
3. About one half of the people are of mixed blood (approximately 47,000,000).

These figures are not exact, but it would be very difficult to find out accurately the race of every person. However, at least half the people of South America are of mixed blood.

Since the 1500's the Indians of South America, like those of North America, have increased very slowly in numbers. The white people, the Negroes, and the people of mixed blood have increased more rapidly than the Indians. The entire population of the continent has increased several times, like that of Europe, Asia, Africa, and North America.

In the past 50 years people have emigrated to South America in large numbers

In *Our Country and Our People* you read that millions of immigrants came to the United States during the 1800's. Year after year the number of immigrants grew. In South America the population is growing in the same way — by immigration. Indeed, the South American countries urge settlers from other countries to come and help to develop the continent. And they are coming, by the hundreds of thousands. Argentina alone has welcomed more than 5,000,000 people to her shores during the past 50 years.

Although the Spanish and Portuguese are no longer the most numerous settlers in South America, they still continue to enter in large numbers year after year. Italy sends even more people; about one fourth of the people of Argentina are of Italian blood. Immigrants from Germany, China, Japan, Arabia, also are coming into the various South American countries in increasing numbers every year.

Whereas many of these people have become laborers or farmers in the South American countries, British have gone there to be traders and business men. They have invested money in banks, farms, railways, mines, ranches, every kind of business.

The United States and Canada have sent fewer immigrants to South American countries than have any of the countries of Europe — only 6000 in spite of the fact that those who did go there to settle received a hearty welcome.

The Resources of South America Have Been but Little Developed

South America's geography has made it extremely difficult for her to develop industrial ways of living. More than half the continent lies in the tropical zone, near the equator. There jungles and heat drive people away. As you have learned, the Andes Mountains seriously handicap communication between the east and the west. Furthermore, the mountains are so high that they do not attract people to make homes there.

South America is a young continent, and its natural resources have not yet been widely developed; hence most of the countries of South America lack the necessary money to build railways, factories, and mines. Some European and American business men have invested money there, but not enough to meet all the needs.

South America today lacks the power needed for manufacturing industries. There is some coal in the land; but it is of poor quality, and even this supply has not been large enough to meet the needs.

Oil, the second most important fuel, has been discovered in Colombia, Venezuela, and Peru, but there are probably many other oil deposits which have never been found. Only a few hydroelectric power plants have been built, however. There is no doubt, therefore, that South America is at present handicapped because of the lack of power.

The railways, waterways, and roadways of South America are still far behind those of Europe and North America. There are not nearly enough railways to furnish swift and easy transportation and communication between the interior and seaports.

The cities of South America are not manufacturing centers. The main ones are trading cities on or near the coast, from which the outside world received great supplies of raw materials from the interior. Most of the manufactured products which are brought to these ports from the outside world are sold to the people of the cities; the rest are carried back to the few people in the interior.

Can South America Become a Center of Modern Industry?

In spite of the many handicaps which have prevented her people from turning to manufacturing, it is possible that South America may become an industrial continent.

There are, for example, vast undeveloped areas where rich mineral deposits lie under the ground. It is said that in Brazil, north of Rio de Janeiro, are the largest deposits of high-grade iron ore in the world.

Furthermore, other minerals needed for steelmaking are found in greater quantities in South America than anywhere else in the world. You remember that the United States, England, France, and Germany have had to import several minerals, for example, tin and vanadium. These two important minerals are found in Bolivia and Peru. Bolivia supplies one fourth of the world's tin, and Peru about three fourths of the world's vanadium.

There are also great deposits of copper, platinum, silver, and gold. So far these minerals have not been used to any extent by the people of South American countries. They have been sold to Europeans and Americans in exchange for manufactured goods. They have furnished an important share of the raw materials needed in the industries of other countries, but they have not been used in manufacturing in South America.

It is important to note, therefore, that as South America develops, it will not be necessary for her countries to get some of the important raw materials from other parts of the world.

The Industrial Revolution Helped To Make South America One of the Greatest Food-Exporting Regions

Of the world's supply of certain foods South America exports more than

85 per cent of the coffee
25 per cent of the wheat and wheat flour
66 per cent of the corn
55 per cent of the beef
25 per cent of the mutton

South America also supplies more than 30 per cent of the hides and skins and more than 25 per cent of the wool produced throughout the world.

"How could the Industrial Revolution have brought about this result?" you ask. There were several important reasons. First, scientists learned how to preserve meat and fruits by refrigeration, so that large quantities can be shipped great distances without spoiling. As a result thousands of ships sail each year from the harbors of Argentina, Brazil, and Uruguay, laden with beef, mutton, fruit, and other foods in refrigerators. They go to England, the United States, Germany, and other industrial countries.

Second, the Industrial Revolution helped South America to become a great exporter of food products. You already know that England, Germany, and other manufacturing countries came to depend on other countries for food supplies. Turn back to the map of sea trade, figure 26. Note that one of the large bands of trade is that between the east coast of South America and western Europe. That heavy band tells the story of thousands of British and other European ships coming into Buenos Aires and other South American ports laden with coal and going back to Great Britain filled with wheat, corn, beef, mutton, and many important raw materials. Because industrial peoples depend on agricultural peoples for food, South America has become one of the most important food-supplying regions for the industrial countries.

In the southern part of the continent there are vast stretches of fertile, level land in a warm, mild climate, where enormous crops are being raised. As immigration increases and more people are at hand to do the work, these areas may grow into important centers of population, agriculture, industry, and trade.

However, South America is still largely a continent of farms. The farms range in size from the little plots of ground worked by Indians with hand tools to the great Argentinian farming estates called haciendas. The little plots are not farmed according to modern methods, and therefore only meager crops are grown. On the large estates, however, enormous amounts of grain and animal products are produced. In Argentina much of the farming is done by modern machinery — tractors, drills, reapers, and binders like those used on the farms of our Middle West states.

Thus, although South America is handicapped by location in a warm climate, by barriers to transportation and communication, by lack of fuel, and by lack of people who are trained to develop her resources, yet she has undreamed-of possibilities in agriculture, in mineral supplies, and in undeveloped power.

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CHAPTER XXVII

THE A B C COUNTRIES OF SOUTH AMERICA

There is not enough space in this book to tell about each of the thirteen countries of South America. We can consider only the three largest and most thickly populated. These three — Argentina, Brazil, and Chile — are known as the A B C countries.

I. Argentina : A Country of Great Ranches

How large and how thickly populated is Argentina?

The map of figure 248 gives you some idea of the size of Argentina. The area is about 1,079,000 square miles, or about one third that of the United States and slightly less than two fifths that of Brazil.

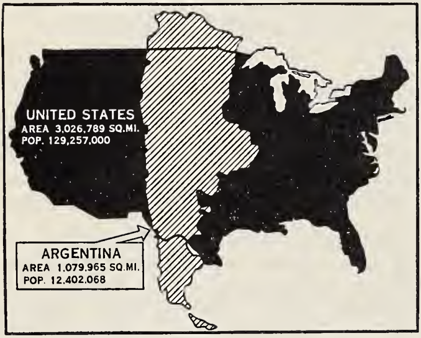

Fig. 248. How much larger is the United States than Argentina?

Argentina has a population of 12,500,000 — about that of the state of New York. Most of these people are grouped near Buenos Aires, the capital; 2,300,000 are in the city itself. Turn back to the population map of figure 247. Notice that the valley of the Paraná River is fairly heavily populated. The greatest massing of people is near the mouth of the Plata. In the vicinity of the cities and towns of this river valley the population is about 125 to 250 persons per square mile. In density of population this region reminds one a little of our northern industrial region.

By far the greater part of Argentina, however, is a great farming country, and people are few and far between. Even in the

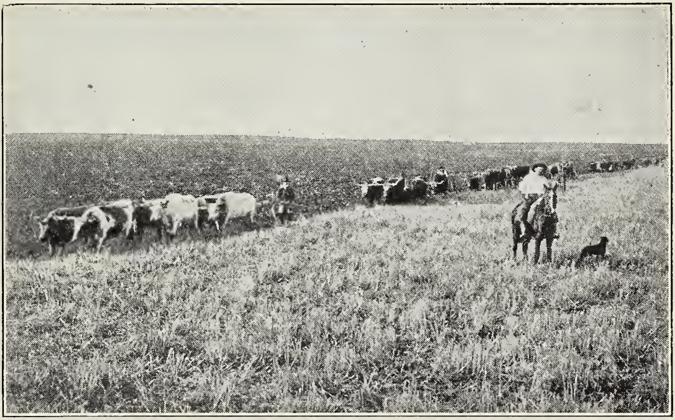

Fig. 249. While much of the plowing on these large grain-producing farms of Argentina is being done by motor-driven machines, yet one may often see oxen pulling the plow while a farmer trudges behind it

northern part of the valley of the Paraná the population becomes very thin, averaging less than one person to a square mile. The reason for this is that in this northern section there are heavily wooded regions bordering on the jungle.

A little town in Argentina illustrates why the population of many parts of this country is so small. About 7,000,000 acres of wild land surrounding the town is owned by one Argentinian family. The town itself consists of a sawmill, an extract plant, and the houses of the employees. A very narrow little railway track is built out into the jungle. Logging trains carry hardwood over this track from the jungle to the sawmill. One particular kind of wood, *quebracho*, is cut more than any other. This is because tannin, used in tanning leather, can be obtained from it.

Argentina is one of the world's greatest producers of wheat

The greater part of Argentina, however, is used either for farming or for ranching. There are huge 1000-acre wheat farms all over the great plains. The average estate farm of Argentina covers about 3480 acres. Most of them lie east of the Andes in the great fertile plain which extends for miles eastward and southward to southernmost Chile.

On these huge farms are raised great crops of wheat, corn, oats, flax, sugar cane, cotton, tobacco, and grapes. In the valley of the Paraná River are vast wheat fields of rich green. Here one may see two men on the seat of a motor-driven plow assuring each other that the lands of this region are worth ten times those of the interior. One cannot doubt them after seeing the rich black earth turned by the plow. It is said that it will produce two crops of potatoes a year.

Export of Wheat	
1898 . .	25,000,000 bushels
1929 . .	250,000,000 bushels
1935 . .	147,000,000 bushels
Export of Corn	
1900 . .	28,000,000 bushels
1929 . .	198,000,000 bushels
1935 . .	273,000,000 bushels

Toward the mountains one can travel westward for days. The eyes become tired by the sight of endless fields of wheat, oats, and corn. There are many ranches and villages on the plain. Fat cattle and sturdy sheep graze in the fields. The round golden ears of corn, ready for husking, would make a Kansas farmer envious.

Most of the European immigrants into Argentina go into this farming country. They usually cannot afford to buy the land, but they can rent it from the owners of the huge estates. The newcomers set up housekeeping in floorless one-room adobe huts roofed with sheet iron. From the landlord they get seed and the use of tools and animals for planting and harvesting. In return they pay half their crop to the landlord as rent. The work of the immigrants is very hard indeed.

The Pampa of Argentina, where cattle, horses, and sheep are raised

The Pampa is a vast grazing plain. Its area is so great that there is a big difference in the climate of the north and south. In the northern Pampa it is very warm. In the southern regions the ground may be covered with snow during the cold months.

The lands of the Pampa are broad and flat. At first glance they seem to be very bare, but actually they are a very valuable part of this country of South America. Why? Because immense herds of cattle, sheep, and horses graze upon them. From them meat, wool, and hides go out to all parts of the world. It is believed that in a recent year there were 32,000,000 cattle in Argentina, 10,000,000 horses, and 45,000,000 sheep.

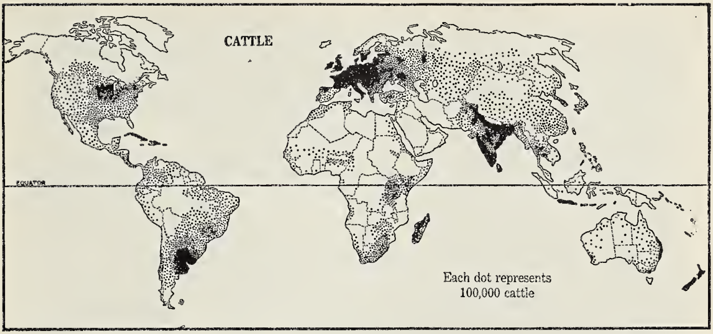

FIG. 250. The dotted regions of the map show where the cattle of the world are raised. The great number of dots covering Argentina shows the important part this country plays in the world's meat supply

The animals outnumber the men by millions. Very few people, indeed, live there; for a huge herd needs only a few cowboys. This region is like the old plains country of the Far West in the days of cowboys and ranches. Every head of beef needs from four to seven acres of wild grazing land.

Buenos Aires, a city of millionaires

In order to get an idea of the number of fortunes made on the ranches of Argentina, one has only to visit Buenos Aires, the capital. More than 2,300,000 people — about one fifth of the entire population of the country — live there.

Buenos Aires is the largest city south of the equator. It is located on a flat plain at the edge of the Plata River, where the river empties its muddy waters into the Atlantic. Thousands of millionaires live there. These are men who have made their money from the sale of their valuable ranch lands as well as from the sale of grain or meat.

Fifty years ago Buenos Aires was like a Spanish city of the Middle Ages, with unlighted and unpaved streets and no sewage system. The houses were built chiefly of adobe, or sun-dried brick. The people of Buenos Aires then had very little contact with the outside world. Since that time, however, railways have been built to connect the capital with many other cities of the continent.

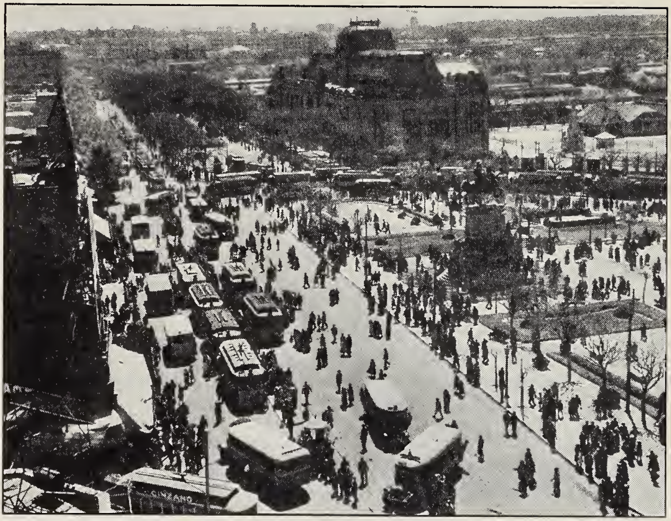

FIG. 251. The Plaza Italia in Buenos Aires. Does Buenos Aires look like most other cities in thriving industrial countries?

Today Buenos Aires is a very beautiful city with miles of boulevards lined with expensive mansions built in the French, Spanish, or Italian style. There are many lovely garden-like parks, and the clubs of the city are among the best in the world.

Because it is a rich man's city, Buenos Aires has little of the ugliness of the large industrial city. There are almost no slums, few factories, and little smoke or soot.

It is a very important center of business. As many as 30,000 ships a year carry out meat and animal products and bring in coal, manufactured goods, and luxuries.

There has been a most astonishing development in Argentine trade since 1875. At that time exports amounted to $100,000,000. In 1936 (61 years later) they amounted to $550,816,000.

Argentina has several other centers of population besides Buenos Aires, but they are not nearly so large. Córdoba is the home of a university over 300 years old. Rosario stands in the heart of the timber trade. Tucumán is the center of the sugar industry. All are important cities.

II. BRAZIL: A HUGE COUNTRY RICH IN TROPICAL PRODUCTS

How large and how thickly populated is Brazil?

Brazil is the largest of the South American countries (3,275,510 square miles). It is 248,000 square miles larger than the United States. If Brazil were as densely populated as is France, it would have 622,000,000 people, instead of its 48,000,000 inhabitants.

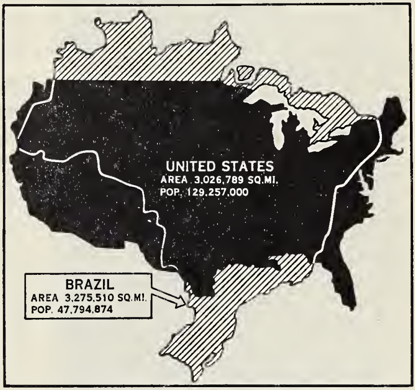

FIG. 252. How much larger is Brazil than the United States? How does the area of Brazil compare with that of Argentina?

The population of Brazil, which is about half that of the entire continent of South America, is not evenly scattered over the country. Inland Brazil is jungle land where almost no people at all live. A large part of this territory has never even been explored. East and southeast of the Amazon River valley are the Brazilian Highlands. They are rich agricultural and grazing lands where cattle, corn, wheat, potatoes, coffee, and beans are raised.

Brazil's people, therefore, are grouped either along the coast in the various port cities or on the southeastern highland plain. People have settled in those regions because it is easier for them to get a living there than in the jungle land of the interior.

The raw materials of Brazil are of great value

Brazil has vast but undeveloped unmined iron deposits, as we have seen in Chapter XXVI. Gold, diamonds, petroleum, and some coal are also found in the earth of this rich country.

Diamonds were discovered by adventurers from São Paulo who were looking for gold. Gold was found in fairly large quantities near a certain muddy stream. A town called Tijucas was founded there. Gold dust and nuggets were so plentiful in that region that they were used as money. The story is told that when electric-light poles were put up, children carried off the earth which had been dug up. They washed it to free the gold that was in it. Even today when there is a rainstorm in that town, tiny particles of gold can be picked up from the gutter or along the edges of the stream. This is a place where gold is actually picked up in the streets, yet the people are poorer and more ragged than those who live by farming.

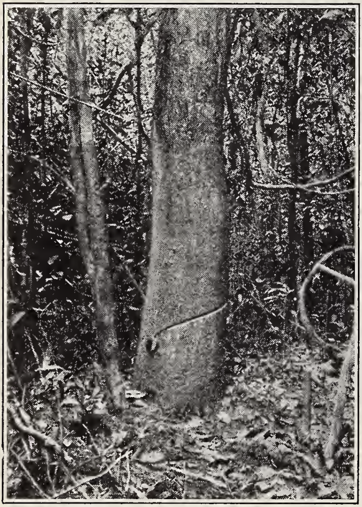

FIG. 253. Rubber trees are found growing wild in Brazil. The scar near the base of this tree shows where it was tapped for the sap from which rubber products are made. (Courtesy of the Bureau of Foreign and Domestic Commerce)

While they were searching for gold, the miners of Tijucas found some bright half-transparent pebbles. These pebbles were of no use to them; so they gave the largest of them to the children. Some of the pebbles the villagers used as counters in their card games. In this way about a bushel of the pebbles were collected in the village and in the neighborhood. One day a man arrived from Portugal. He played cards and, noticing the odd counters which the villagers used, remarked that he liked the pebbles and wished to have some for keepsakes. He managed to gather about half a bushel of the bright pebbles and then suddenly disappeared. The pebbles were diamonds!

Word soon reached the ruler of Portugal that a new form of riches had been found in his colony. He learned later that the range of hills to the south of Tijucas was rich in diamonds. Then diamond-digging became an important industry of Brazil.[1]

Somewhat later another important industry — rubber — was started, this time in the jungle region.

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[1] This episode is written from facts contained in an account by Harry A. Franck, in *Working North from Patagonia*, pp. 328–329. The Century Company, New York, 1921.

About 100 years ago people learned that rubber could be obtained from the wild rubber trees of Brazil. At that time, however, they had not learned to make use of rubber. Then, in the middle of the nineteenth century, American and European inventors discovered that rubber could be used for clothing, bicycle tires, buggy tires, and many other things. After 1895 came the invention of the automobile and with it a great increase in the demand for rubber for tires. Brazilians soon began to export their rubber in large quantities. In 1870 only 10,000,000 pounds of Brazilian rubber were sent to other countries. In the year 1912 Brazil exported 93,000,000 pounds. Many men became millionaires in the rubber trade.

The Brazilians soon lost much of their trade, however. In the early 1900's British business men began to grow rubber on large plantations in the Malay States of the Far East. By 1910 they began to ship their rubber to England and other manufacturing countries. From that time on, Brazilian exports of wild rubber decreased, until at the present time only about 40,000,000 pounds a year are exported. Before 1900 Brazil supplied almost all the world's raw rubber. Today it supplies only about 2 per cent. American business men, however, have recently invested more money in great rubber plantations in Brazil, so it is possible that some of the lost trade may be regained.

Of all Brazil's agricultural products the best known is coffee

When one thinks of Brazil today, he usually thinks of coffee. It is grown on large plantations in the southeastern part of the highlands of Brazil. The center of the coffee-growing country is near São Paulo. From there much of it is sent to the port city of Santos to be shipped to other parts of the world.

A trip to a plantation in the coffee district is delightful. Hundreds of men, women, and children are busy with cloths, sieves, and baskets, collecting berries. The *fazenda*, or coffee plantation, is run somewhat like a medieval manor. The people who work on it are given their little plots of land which they are to keep free of weeds and on which they must also raise trees and vines which will shelter the delicate coffee berries. The laborers have a right to plant either vegetables or grains between the trees.

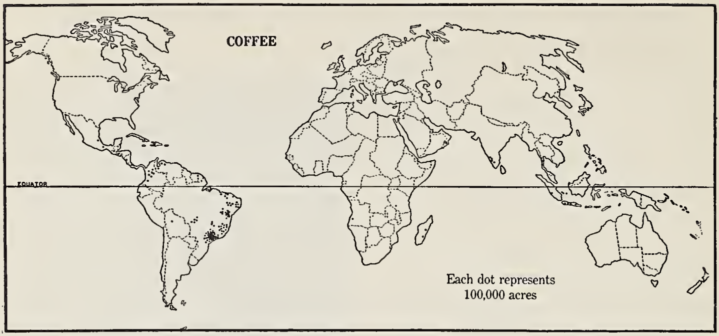

Fig. 254. The dots show where the world's coffee is grown. The map shows clearly that Brazil is the most important coffee-growing region in the world

Most of the workers are Negroes or immigrants from southeastern Europe or Japan. While they work they have a basket hanging from their shoulders, into which the berries are thrown. Cloths spread at the foot of the trees catch berries which have fallen. When the basket is full, the berries are shaken through a sieve to free them of twigs and leaves. Each picker's collection is then measured, and the berries are taken to the terraces to be washed and spread in the sun to dry.

When the berries are dry, they are passed through husking machines, which free the beans from the husks. The beans are then picked over by hand, packed, and sent to merchants to be sold.

The history of Brazil's development has been the story of the rise and fall of one important product after another. First, sugar was the fortune-making crop of Brazil. Then gold was discovered, followed by diamonds. Rubber came next. Today coffee is the chief export product of Brazil. All the other products are still raised or mined and exported, but in smaller quantities than in former years.

Scientists have made it possible to live in tropical Brazil, and trading cities are growing

It has always been difficult for people to live in the great Amazon River basin. It has been the home of malaria and many other tropical diseases. Men have dreamed of making it a healthful home for white people, but the task of carrying out the dream is a tremendous one.

In the beautiful city of Rio de Janeiro, farther south, however, they have been very successful. In 1890 sailors dreaded to call at this port because of the danger of fever. Today it is one of the finest port cities in the world. Tropical fevers have been almost entirely stamped out by modern sanitation. Rio de Janeiro is now a meeting place of people from all over the world.

Large numbers of people live in other cities besides Rio de Janeiro. Santos is one, although Santos is not a beautiful metropolis. It is a day's sail from Rio de Janeiro, separated from the ocean by a deep, wide bay. The city itself is poorly paved, and the streets are often muddy. Clattering mule teams carry coffee from the great warehouses to the docks. There are streetcars and trains. A long line of steamers lies always at the docks waiting to be loaded with coffee; for Santos is the greatest coffee port in the world.

Is Brazil well supplied with railways?

Look at the railroad map of South America, figure 246. Does Brazil have many railways? Where are they? Where do they center?

In most of Brazil there are few railways. Travelers must go on horseback, on foot, or by boat. The wealthier people may travel in their automobiles, but there are few good roads. Means of travel are very slow. Someone has said that it is easier for a merchant in Chicago to keep in touch with Australia than it is for a merchant of one of the coast cities of Brazil to keep in touch with the Amazon region.

Industries in Brazil

Many young and growing industries in Brazil have made that country the most industrial one in South America. However, Brazil lacks fuel for manufacturing and is obliged to import coal. In spite of this handicap the factories of the country supply 90 per cent of the cotton goods used there, much of the woolen goods, and nearly all the boots and shoes, hats, tobacco, and furniture.

Can you see why these particular products should be manufactured more than others that are just as necessary to the life of the people there?

The export trade of Brazil is almost entirely of raw materials and food products. The principal exports are

Coffee
Yerba maté (tea)
Cacao
Hides
Frozen and chilled meats
Sugar
Tobacco
Rubber
Cotton
Leather

III. Chile: A Farming and Mining Country

The queer, long land of Chile: its size and population

Along the west coast of South America stretches the swordlike country of Chile. It is 2600 miles long, with the Andes Mountains running like a backbone along the eastern boundary and with the sea on the west. It is nearly as long as the United States is wide, but its own width is less than 200 miles.

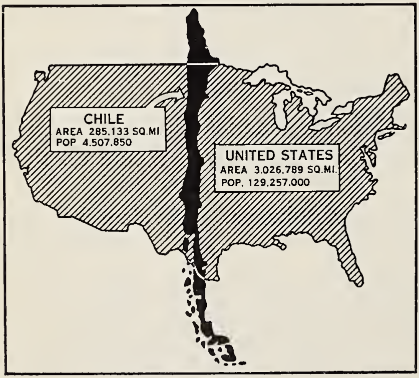

Fig. 255. How much larger is the United States than Chile? How does Chile compare in size with Argentina and Brazil?

Chile is the smallest of the A B C countries. Its land area (286,000 square miles) is less than one tenth that of the United States. There are about 4,500,000 Indians, Spaniards, European immigrants, Negroes, and mestizos in the country. Three fourths of the people are mestizos.

As you look at Chile on the map following page 512 and notice the mountains, the desert, and the sea, you may wonder how people of that long, narrow land manage to make a living at all. Nevertheless, every region of the country yields valuable products.

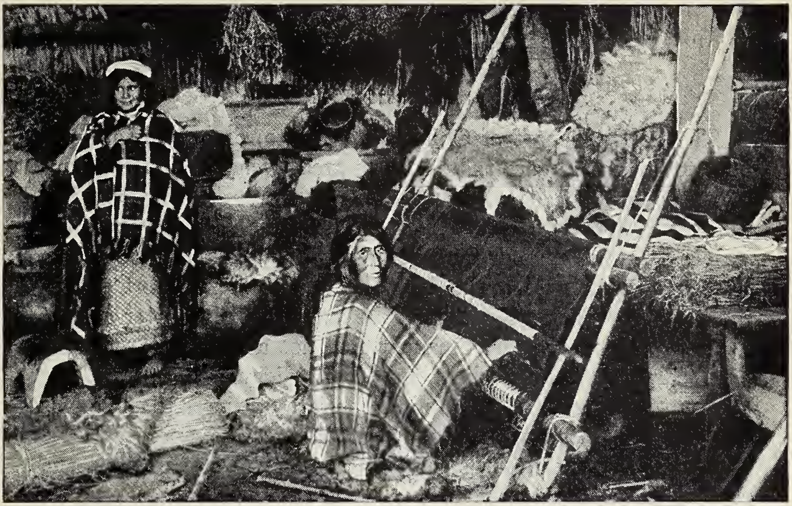

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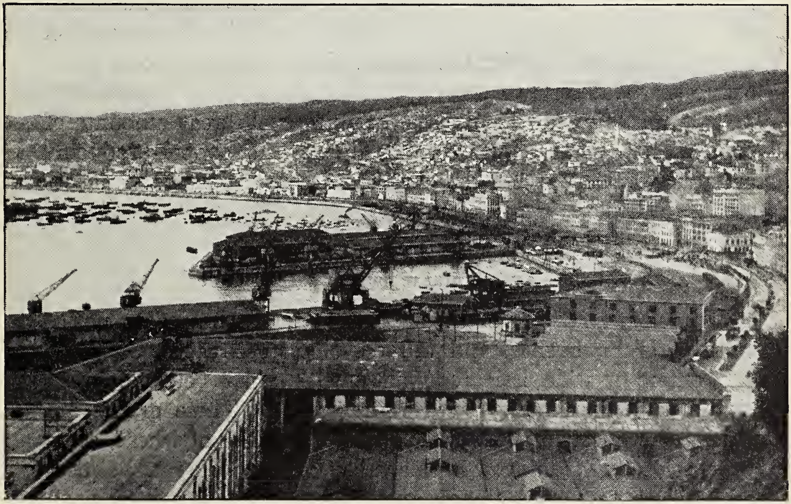
Fig. 256. Most of the people of Chile are mestizos, a mixture of Indian and Spanish blood. Notice their primitive way of living, as shown in the picture, and the hand looms, on which they make their shawls



James Sawders

Fig. 257. Valparaiso, the chief seaport of Chile

The Three Regions of Chile

1. The rich desert of the north

The northern part of Chile is a desolate, dreary region. No one would ever dream that it holds great riches. Yet from this region comes the nitrate which, before the World War, supplied the world with fertilizer. The great Atacama Desert, where the nitrate is found, extends for several hundred miles. The Atacama Desert is very much like the Sahara or the Arabian Desert. It has the same scorching wind during the day, the same bitter cold at sunset. Years may pass during which not a single drop of rain falls. The men who work in the desert, digging the nitrate, are constantly tortured with thirst. There are no rivers through this region. The waters which flow from the Andes evaporate in the great heat or sink into the sand to reappear as salt pools in the desert. After the nitrate is dug, it is sent to the coast cities. Antofagasta and Iquique are among the chief ports of Chile. They are about 100 miles west of the desert.

The nitrate industry was formerly the chief industry of Chile. However, since Germany has begun to manufacture and to export large quantities of artificial nitrate, the Chilean trade has fallen off. It is very expensive to mine nitrate in Chile, for every tool and every bit of food for the laborers has to be shipped at great cost over the desert.

The mines of northern Chile produce such great amounts of copper that Chile ranks second among the copper-producing countries of the world. The northern desert region is the richest section in Chile.

2. The agricultural regions of central Chile

Traveling south from the desert land, one begins to notice tufts of grass, bushes, and tall red-blossomed cactuses. Then one enters a wide irrigated valley with great fields of green alfalfa and vines heavy with white grapes. These grapes are among the finest in the world. Great quantities of wheat, corn, vegetables, and fruit grow in this valley. Here Chile raises almost all her food products. Sheep are also grazed in the central part, and 25,000 tons of mutton are sent to England every year.

3. The southern section of Chile

Southern Chile is a wild, cool country with almost untouched forests of timber. These are beginning to supply lumber to world markets. Only a small part of this section is cultivated.

The chief product of southern Chile, however, is coal. This is the chief coal-producing country of South America. Government experts say that there are 2,000,000,000 tons in this southern region, where some of the deposits extend under the sea as far as 30 miles. While the greater coal-producing countries were actively engaged in the World War, Chile helped to supply the countries of Europe with fuel.

After the war this trade decreased sharply; but the government of Chile is now encouraging coal-mining by introducing modern methods of mining. However, Chile is handicapped because of the lack of money to make great improvements. The government is also trying to help trade by constructing docks and erecting great cranes at the ports of southern Chile which will help in the loading and the unloading of coal steamers.

Has Chile factories and cities?

Chile has fewer factories than either Argentina or Brazil.

There are several important cities, however, though they are not so large as those of Argentina and Brazil. The two most important ones are Santiago, the capital, and Valparaiso, the chief seaport.

The opening of the Panama Canal did much to help Chile to become an important trading country. It also made it possible for the United States to send manufactured goods more quickly and easily to Chile than to the countries on the east coast.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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UNIT XI

SUMMING UP CHANGING CIVILIZATIONS IN THE MODERN WORLD

Throughout this book we have tried to understand how the other peoples in the world live. We have studied how they work, how they get their food, clothing, and shelter, and how they transport things and communicate with each other. We have tried to understand the standard of living of the people of each country.

In every chapter we have described countries as either industrial or agricultural. Four examples[1] *have been studied of civilizations that we have called industrial — Great Britain, France, Germany, and Japan.*

Thirteen countries — India, Italy, Norway, Sweden, Denmark, Australia, New Zealand, Canada, Russia, China, Argentina, Brazil, and Chile — have been taken as examples of agricultural countries which are changing to some extent into industrial countries. In each of these, of course, many of the features of industrial countries can be found in occasional cities and towns — such features as factories and power-driven machines, railways, and electrical communication. There are banks and stores, automobiles and telephones.

With the seventeen examples which we have studied in this book, therefore, we are now ready to sum up what we have learned concerning other countries of the world. First, what is the difference between an industrial country and an agricultural country? Are there real differences between the standards of living in industrial countries and in agricultural countries? Have the people in industrial countries more and better houses, clothes, or food than those in agricultural countries? Have they more time for leisure? Have they more kinds of recreations? Do they enjoy different things?

These are the questions that we shall strive to answer next. To do so, we shall review carefully what we have already learned from the study of the separate countries.

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[1] In *Our Country and Our People: An Introduction to American Civilization* we studied the fifth important one — the United States.

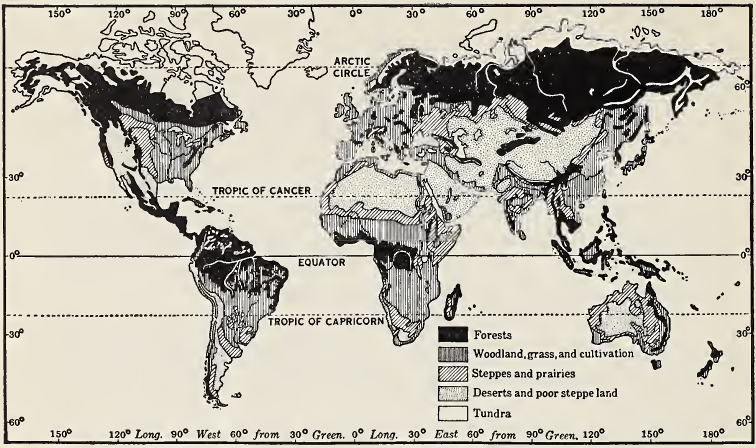
150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150° 180°
ARCTIC CIRCLE
TROPIC OF CANCER
EQUATOR
TROPIC OF CAPRICORN
30°
0°
60°
Forests
Woodland, grass, and cultivation
Steppes and prairies
Deserts and poor steppe land
Tundra
120° Long. 90° West 60° from 30° Green. 0° Long. 30° East 60° from 90° Green. 120°

FIG. 258. With the help of the key in the lower part of the map can you tell the proportion of the earth's surface which is fertile today? Does the map help you to understand why some regions are densely populated and others scantily peopled?

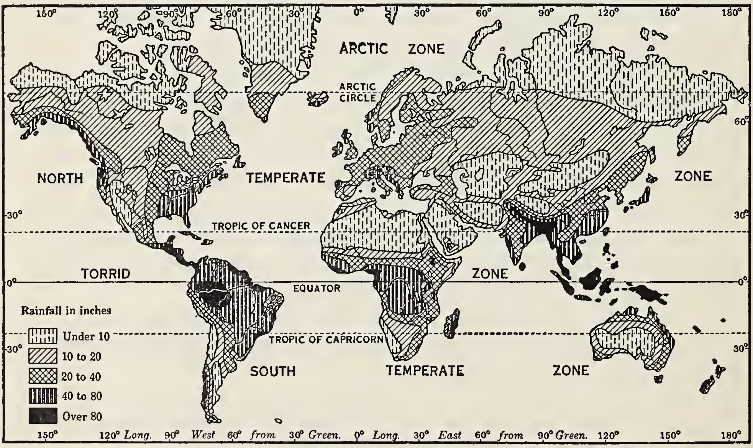
150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150° 180°
ARCTIC ZONE
ARCTIC CIRCLE
NORTH TEMPERATE ZONE
TROPIC OF CANCER
TORRID ZONE
EQUATOR
TROPIC OF CAPRICORN
SOUTH TEMPERATE ZONE
30°
0°
60°
Rainfall in inches
Under 10
10 to 20
20 to 40
40 to 80
Over 80
120° Long. 90° West 60° from 30° Green. 0° Long. 30° East 60° from 90° Green. 120°

FIG. 259. This map shows the distribution of rainfall over the land area of the world. Does this help you to account for the kinds of products which are grown? for the amount of products? for the density of population?

CHAPTER XXVIII

CONTRASTS BETWEEN INDUSTRIAL COUNTRIES AND AGRICULTURAL COUNTRIES

In this book and in *Our Country and Our People: An Introduction to American Civilization* the chief modes of living of eighteen countries have passed before our eyes. We have seen more than 1,250,000,000 human beings struggling to get a living. Each people has its own ways of getting food, of building houses, and of making clothing. Each has its own means of transportation and of communication. Each has its own kind of trade.

These, taken together, make each country different in some way from every other one. Great Britain is not like Germany, even though they both propel land, water, and air vehicles by means of engines, manufacture goods with machines, and transport the goods on trains, trucks, and steamboats. In many respects both are unlike either France or the United States, Japan or Russia, which do the same things: each one has its own peculiar way of living. Ours is *American*; theirs is *British*, or *French*, or *German*, or *Japanese*, or *Russian*. So also India, China, and the A B C countries of Latin America are different from one another, although each is really an agricultural country.

WHAT ARE THE REAL DIFFERENCES BETWEEN INDUSTRIAL AND AGRICULTURAL COUNTRIES?

We have found many ways in which industrial countries are like one another; also many ways in which agricultural countries are alike. We have said that there are fairly clear differences between *industrial civilizations* on the one hand and *agricultural civilizations* on the other. In this book we have illustrated the differences many times. One of your most important tasks is to understand these differences. Only by understanding them can anyone understand the changing civilizations of the modern world.

Think back over the *seventeen* countries you have studied in this book. Which have been the most completely *industrial*? Which have been the most completely *agricultural*? In which do the standards of living seem to be "highest"? In which do they appear to be "lowest"?

1. The industrial countries

At the one extreme there is the very highly industrialized country of Great Britain. Four out of five of her people live in cities or towns. Some work in factories and stores, operate trains and other kinds of transportation. Some dig in coal and iron mines. Some sell goods around the world. Others devote their lives to the study of science and the use of scientific knowledge in every part of life. Great Britain, we learned, is even more completely industrialized than the United States. Most important of all, we found that Great Britain depends very much indeed upon other countries for food, for raw materials, and for trade.

At the other extreme is the agricultural-handicraft country of China. Practically all her people are living in villages, engaged in farming or handicrafts. Few people are working in factories. There are few trains, paved cities, automobiles, telegraphs, or telephones. The Chinese, we found, are almost self-sufficient. Their lives depend very little on other people's.

Between these two extremes other countries of the world now arrange themselves in our minds as follows:

1. Germany, like Great Britain, is an industrial country, depending for her existence on other countries.
2. France, Denmark, Norway, and Sweden, partly industrialized and partly agricultural-handicraft, are almost able to provide for themselves.
3. Japan, using more and more machines in her cities, is rapidly becoming an industrial country; is partly still an agricultural-handicraft country.
4. Russia is quickly changing from an agricultural giant to a great industrial country. Although millions of her peasants still get their living from the soil, factory and machine workers are increasing by leaps and bounds. Machines are also coming into use on her larger farms.

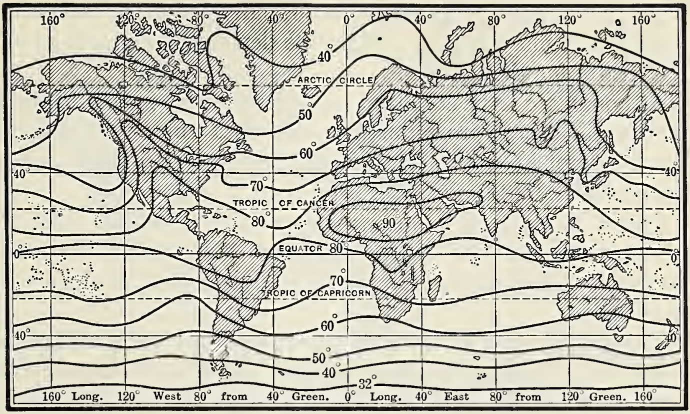
160°
120°
80°
40°
0°
40°
80°
120°
160°
40°
ARCTIC CIRCLE
50°
60°
70°
TROPIC OF CANCER
80°
90°
EQUATOR 80°
70°
TROPIC OF CAPRICORN
60°
50°
40°
32°
40°
0°
40°
160° Long. 120° West 80° from 40° Green. 0° Long. 40° East 80° from 120° Green. 160°

FIG. 260. The heavy lines on the map and the figures indicate the average temperature in July of all the regions in the world

Five of these seventeen countries, therefore, — Great Britain, France, Germany, Russia, and Japan, — could be called *industrial* countries. With the United States they comprise the leading industrial powers of the modern world.

2. The agricultural countries

The other countries of the world resemble China much more than they do Great Britain and the industrial countries.

1. India: millions of peasants living in their countless villages.

2. Argentina, Brazil, and Chile: the American and Indian farmers of these countries produce large quantities of the world's coffee, wheat, meat, and many of its raw materials. But parts of the new world of South America are beginning to take over some of the industrial ways of living. Modern cultivating and harvesting machines are coming into the great wheat farms of Argentina. Machinery is helping do the work of men in the mines of Chile. The huge exports of South America are loaded and transported by modern methods. The countries of Latin America are good examples of changing civilizations.

3. Through your individual and committee studies you have also had glimpses of life in the smaller countries of the earth. A

few of these, Italy, for example, are rapidly becoming industrialized. But in most of them the people depend on agriculture and handicrafts for their living.

Although we have said that certain countries are agricultural and certain others are industrial, this does not mean that one nation cannot be both. The United States, as we have seen, is both industrial and agricultural.

France is certainly both agricultural and industrial. She too uses machines on her larger farms and in her many factories; but much of her work, both on farm and in shop, is done with hand tools.

The same is true of Germany, of Japan, of Russia, and of the Scandinavian countries, which are using power-driven machines to do some of their work. In Great Britain there are still many people living and working on farms. So you see that even a highly industrialized country may be partly agricultural and that an agricultural country is likely to be partly industrial.

The Spreading of European Civilization Has Changed the Face of the Earth

The next extremely important fact we have learned is that the Industrial Revolution is speeding along more rapidly than ever. It is beginning to affect even those few places on the earth today which are not controlled by Europeans.

In every region of the earth civilizations are changing. Ancient Japan has just recently installed power-driven machinery. She has developed a modern army and navy. Her merchant ships trade around the world. She mines coal and iron in China and operates railways and other industrial enterprises in Manchukuo and Chosen. China too is changing. Coal is being mined. Industries are growing in cities. Textile mills and iron and steel foundries have been established. From Cairo to Cape Town, Africa is now being transformed.

Peoples are not only changing in their ways of making things and transporting things, but they are changing their customs, their recreations, and their outlook on life as well. In many countries men and women are copying the dress of Europeans. Edu-

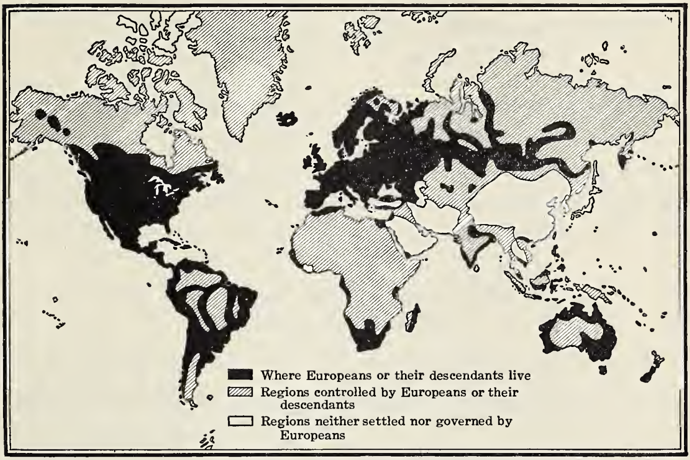
■ Where Europeans or their descendants live
▨ Regions controlled by Europeans or their descendants
☐ Regions neither settled nor governed by Europeans

FIG. 261. With the help of the key in the lower part of the map you can see the regions of the earth which Europeans or their descendants inhabit today and many other regions which they control

cation for all people is one of the goals of every country. In Russia, China, India, and many other places schools are being opened for grownups who are unable to read and to write, as well as for little children.

All these and other things have gone on together: (1) the increase in the knowledge of science; (2) the discovery of how to control nature through engines, machines, chemistry, and electricity; (3) the spreading of Western customs and the idea of "education for all"; and (4) the struggle for greater freedom in government — for more self-rule.

In brief, all these things working together are raising standards of living all over the world. In some countries standards of living are rising rapidly; for example, in the United States, Germany, France, and Great Britain. They are rising more slowly in central Europe, in Africa, and in Latin America. Most slowly of all, changes are coming in China, in interior parts of Asia, and in isolated portions of Africa and South America. But all are changing. All are being influenced by the spread of industrial ways of living.

How Do Other Peoples Like the Spreading of European Civilization?

The leaders do not agree as to whether they should adopt Western ways

Two groups of leaders in Asia are rapidly learning the ways of the West: (1) the young students and (2) the progressive business men. We shall see first the attitude of the young students.

The young students of Asia want to adopt the European civilization

Most of the young students of Asia are eagerly learning the ways of the West and are urging their native people to adopt them. They have seen the improved health and higher standards of living in Western countries and want the same thing for their own people. They believe in using machines and in producing goods on a large scale. A growing group of young Chinese, Filipinos, Indians, Siamese, Persians, Turks, and Egyptians wants to turn their agricultural and handicraft civilizations into industrial ones.

These students are not afraid to try out the new methods of doing things. They have before them the example of Japan, which, after rapidly learning industrial ways, took her place among the powerful nations of the world. The old people of China did not want China to become an industrial country. The new group is different. It says: "Look at Japan! Let us be like her!"

The Spreading of Western Kinds of Education

Many of the young people of Asia are receiving a modern education in their own countries. Consider what is happening in China. For thousands of years the students of China spent their time memorizing the writings of their scholars of long ago. Nowadays the young Chinese are turning from the study of these ancient writings. Instead they are turning to the making of experiments in science; to the study of engineering, of teaching, and of scientific management in industry and business.

Many more young people of Asia went to Europe, or America, or Japan, where they studied in the universities. They traveled far and wide over Western countries. They saw how roads and railways and the telegraph could help people to know more about each other. For example, these young Chinese began more and more to believe in the need of improving the physical standard of living of their people. Soon new schools were established in China. Here the young Chinese were prepared for the universities. The table above shows the increase in the number of students and schools between 1910 and 1923. Since that time the number of schools and of students has nearly doubled.

NUMBER OF HIGHER AND MIDDLE SCHOOLS AND STUDENTS IN CHINA

Year	Schools	Students
1910 . .	42,444	1,625,000
1919 . .	134,000	4,500,000
1923 . .	178,981	6,619,792

Such students as these are becoming leaders in the change that is taking place in Asia.

In India, too, many students in government universities are studying the methods of engineering, of industry, and of government and trade followed by their British rulers. These universities were opened especially to train Indians in the civil service. Graduates of these schools become government employees.

Back in the Middle Ages, Egypt had certain schools that served the people of that time fairly well. In fact, at that time El-Azhar, the university at Cairo, Egypt, was a model for schools all over Europe. There the students studied the Koran (the Mohammedan Bible) and prepared themselves to be priests and judges. But such studies today would offer little to prepare students for modern life. This university has changed. It now has over 9000 students and is beginning to take a part in the life of modern Egypt. It encourages national feeling, and its students are being taught "Egypt for the Egyptians!" Within its walls was born the Young Egypt movement.

One of the first steps of the Young Turks after their revolution in 1908 was to send 100 young men to study in European universities. These students returned to devote their lives to the building up of Turkey.

The greater number of people in Turkey could not read or write; so it was necessary to open village schools. This was done. The old schools were repaired. New equipment was installed. All the schools were ordered to teach the Turkish language; even prayers, which had been said in Arabic for centuries, were to be said in Turkish. All schools were to follow the new Turkish customs. These have changed as Egyptian customs have changed. Many women are now going without their veils, wearing European dress, and taking a more important part in the life around them. Turkey is making herself over into a nation which resembles the nations of the West.

Progressive business men of Asia are also adopting Western methods in industry and trade

You have already read the story of the Mitsui family in Japan. The manner in which this family of business men installed power-driven machinery in their factories, built steamships, railways, telegraphs, and telephones, and sent salesmen into other countries is similar to what has happened in England, in Germany, in France, and in the United States.

Many other examples could be given of the way China, Siam, the Philippines, the Malay regions of southeastern Asia, India, and many parts of Africa are becoming "industrialized." The business men have joined hands with the young students to bring about this change.

Will the whole world adopt machine manufacturing?

Some people think the whole world may become industrialized. They believe that machines and engines and chemicals will be used everywhere. They believe that cities and great industrial centers will continue to spring up, and that trade will increase more and more. They believe that people will become more and more dependent on one another and will become more and more alike in language, in customs, in habits, and in ideas — that the new European civilization will spread to every corner of the world.

Growing Doubts and Uncertainties: Can Industrial Civilization Manage Itself?

But since the Great World Depression started in 1929, many well-informed students have become much troubled by growing dangers in the industrial countries. They agree that the coming of machines has given the people of the world a better standard of living — more and better food, shelter, clothing, education, recreation, and the like. It has also reduced the pain and fatigue of the people and permitted them to live longer.

But these students remind us also that the peoples of the entire world are suffering unhappiness and unrest as a result of their taking up of industrial ways of living. Let us note some examples.

Storm centers of the world

One third of the people of the world are ruled by dictators; that is, their government affairs are in the hands of one man or, at most, a few men, not in the hands of representatives of the people. In nearly a score of countries government is run on this "one-man" idea. Let us examine briefly a few examples of this kind of rule.

Italy. Conditions of work and living in Italy after the close of the World War were very bad. Millions of people were unemployed. Strikes were frequent. The government officials seemed unable to do anything about it. In 1922 Mussolini and his followers seized the Italian government. From that year to the present one Mussolini and a few black-shirted Fascist leaders have ruled 43,000,000 people by armed force. Freedom of speech and of the press, trial by jury, — in fact, most of the civil rights dear to democratic peoples, — have been suppressed. Laws have been made, and the Fascist leaders see to it that they are obeyed. Opponents are jailed without trial or are exiled or put to death. Here is government by Terror — the Black Terror.

Russia. For more than twenty years this vast country has been under the iron rule of a dictator. Today Stalin and the leaders of the Communist party make all the decisions concerning the government of more than 166,000,000 people. During the years since the Russian Revolution of 1917, civil liberties have been as nonexistent as they were in the days of the Czar. Here, too, opponents have been killed or exiled or put in prison for protesting against the actions of the dictators. The new government of Russia may be accomplishing marvels, but it is still government by Terror — the Red Terror.

Germany. Here we find the same kind of dictator government. Between 1919 and 1933, when Germany was going through very difficult times, Adolf Hitler and his brown-shirted Nazis slowly gained more and more seats in the Reichstag, Germany's parliament. They conducted armed riots in the cities, and interjected themselves into every branch of the government. Finally they obtained full control. Since then they have ruled the millions of Germans by force and terror. The people themselves have had practically nothing to say about their own government. Those in power have put opponents to death or exiled them or sent them to prison camps. Hitler and his friends decide all and dictate all. Thus Germany too is having a Reign of Terror — Brown Terror.

Other storm centers reveal the same political turmoil. In Poland and in Hungary, in Yugoslavia, Turkey, Greece, and in other countries dictators have taken full control over the lives of the people.

While Europe staggers backward in its march toward democracy, a new epidemic of revolution has swept over Latin America. In Argentina, Brazil, Peru, Bolivia, Cuba, Venezuela, and Chile, dictators, calling themselves "Presidents," have seized the governments with their armies and rule by force. Thus throughout much of the Western world democratic government is being wiped out.

Revolt in Asia!

Not only is there unrest in a score of Western countries; the disorder of the world reveals itself also in a gigantic Asiatic uprising. Wherever one goes, from Japan to Egypt, the Orient is seething with turmoil. In Indo-China natives mutter against French rule. In India and Burma peaceful religious leaders are trying to free their millions of people from the rule of the bankers, manufacturers, and soldiers of Great Britain. In the Near East Western civilization is spreading swiftly. Western schools, clothing, railroads, as well as telegraphs, factories, and automobiles, are everywhere. But the hatred of the "foreign devils" is also rising among the Arabs, Mesopotamians, Syrians, and Turks. "Asia for the Asiatics" seems to be the slogan of the whole continent.

Again we must ask, "Has the world been made safe for democracy?"

Is the world disarming?

In 1919 the warring nations signed the Treaty of Versailles to bring peace and order to the earth. One of the most important steps to be taken was drastic disarmament. The wasteful expense of huge armies, navies, and fortifications was to be done away with.

Has this hope been realized? Far from it. Today the leading nations have *more men under arms than in 1913*, the year before the outbreak of the World War. Nearly $5,000,000,000 was spent for armaments in 1929. Furthermore, peacetime industries, such as chemical factories, machine shops, and textile mills, can be transformed at an instant's notice into plants for the making of war materials. Instead of disarming, modern nations are today armed to the teeth.

The political leaders talk loudly of peaceful desires. Premiers meet, societies organize, conferences discuss; but war preparations go on.

World unemployment

The world is in a state of unrest for many other reasons. One is the unsolved problem of employing the world's workers. In England, in France, in Germany, in Japan, — in fact, in every country that has been industrialized, — millions of men and women beg for jobs to feed their starving families. In our own country 12,000,000 able-bodied workers are pleading for employment. The politicians of the world seem helpless before the problem of giving work to those who want it. While a few men have incomes of $1,000,000 a year, nearly half of the people lie in the shadow of the poorhouse.

Universal education or continued world war?

Has the world been made safe for democracy? One conclusion comes clearly as we face this question; that is, the events of the past decade have brought problems of tremendous difficulty for the young people of a storm-swept world.

In little more than a century a totally new kind of civilization — industrialism — has been invented in Europe and spread to every continent. Upon the younger generation of the leading industrial nations falls the serious task of successfully meeting these problems. The questions boil down to three:

First. Can the thinking minds of the industrial countries work together to plan a wise way to use the world's great natural resources — food, fuels, minerals, textile fibers, and chemicals — for the benefit of *all* the people?

Second. Can the leaders within each country plan and carry on its national affairs so that each human being has a job suited to his abilities and interests and a fair share of the nation's income?

Third. Can each nation set up a system of universal education which will develop in its youth respect for the fine traits of other peoples and determination to co-operate with them in planning an orderly world?

These questions we shall study in each year of our work in the social sciences.

WE MUST TURN NOW TO A MORE CAREFUL STUDY OF OUR OWN COUNTRY

One of the very best ways to study the changing industrial civilizations of the earth is to learn all that we can about our own country. The United States of America is, as we saw in *Our Country and Our People,* the richest of all the industrial countries of the earth. Our country is a giant; it possesses or produces

One third of the world's *iron and steel*
One third of the world's *coal*
Three fourths of the world's *automobiles*
Five eighths of the world's *oil*
One fourth of the world's *water power*
One third of the world's *railroads*
One half of the world's *telephones*
Two fifths of the world's *cotton*
One seventh of the world's *wheat*

And yet in spite of such riches one fourth of our workers are out of work. The vast majority of all our people do not earn enough money to buy the things needed for a decent standard of living.

Why? That is a very difficult question to answer. Indeed, it can be answered only by hard study, particularly of the history of America.

In the next two volumes of this series, *The Conquest of America* and *America's March Toward Democracy*, we shall study that history carefully.

INTERESTING READINGS FROM WHICH YOU CAN GET ADDITIONAL INFORMATION

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APPENDIX

The statistical material included in these tables has been compiled from the more complete statistics which appear in the following sources:

Fifteenth Census of the United States (1930). Bureau of the Census, Department of Commerce.
Statistical Abstract of the United States (Annual). Bureau of Foreign and Domestic Commerce, Department of Commerce.
The Statesman's Year-Book. Macmillan & Co., Limited.
Yearbooks of principal countries, such as China Yearbook, etc.
The World Almanac (Annual). New York World-Telegram.

TABLE I. THE SIZE OF THE EARTH

Diameter of earth at equator (miles)	7,926
Distance around the earth at equator (miles)	24,900
Land area (square miles)	55,940,768
Water area (square miles)	139,685,000

TABLE II. AREA AND POPULATION OF THE CONTINENTS

CONTINENT	AREA IN SQUARE MILES (APPROXIMATE)	POPULATION
Africa	11,500,000	150,000,000
Asia	17,000,000	950,000,000
Australia	2,974,581	6,753,114
Europe	3,750,000	550,000,000
North America	8,000,000	168,000,000
South America	6,800,000	93,000,000
Antarctica	5,000,000	—
Total	55,024,581	1,917,753,114[1]

TABLE III. STATISTICAL FACTS FOR THIRTY-THREE PRINCIPAL COUNTRIES OF THE WORLD

	AREA IN SQUARE MILES[2]	POPULATION[2]	MILES OF RAILROAD	NUMBER OF TELEPHONES	NUMBER OF AUTOMOBILES
1. Argentina	1,079,965	12,402,068	24,811	322,873	247,780
2. Australia	2,974,581	6,753,114	27,130	501,402	631,854
3. Belgium	11,775	8,299,940	3,014	323,423	162,450
4. Brazil	3,275,510	47,794,874	20,571	192,666	140,000
5. Canada	3,694,863	10,376,786	42,270	1,193,729	1,162,948

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[1] Including the East Indies, 1,972,161,998.

[2] According to the latest census figures and official estimates.

TABLE III. STATISTICAL FACTS FOR THIRTY-THREE PRINCIPAL COUNTRIES OF THE WORLD (*Continued*)

	AREA IN SQUARE MILES[1]	POPULATION[1]	MILES OF RAILROAD	NUMBER OF TELEPHONES	NUMBER OF AUTOMOBILES
6. Chile	285,133	4,507,850	5,467	50,360	35,320
7. China	3,977,979	423,634,552	5,771	164,000	47,442
8. Colombia . .	448,794	8,665,000	1,987	34,442	22,176
9. Denmark . .	16,575	3,706,349	3,204	377,565	131,611
10. Egypt	383,000	14,217,864	3,334	49,765	29,046
11. France . . .	212,659	41,905,968	26,393	1,399,869	2,065,200
12. Germany . .	240,000	85,000,000	37,111	3,392,851	1,158,472
13. Great Britain .	94,284	46,189,206	20,170	2,366,311	2,043,451
14. Greece . . .	50,270	6,830,000	1,799	26,712	14,280
15. Hungary . . .	35,875	8,943,533	7,968	121,802	16,082
16. India	1,547,069	338,170,632	43,021	64,448	104,852
17. Italy	119,714	42,527,561	14,372	516,075	395,727
18. Japan Proper .	147,611	70,258,200	14,612	1,068,244	133,259
19. Mexico . . .	763,944	16,553,398	14,310	108,652	97,517
20. Netherlands .	13,203	8,474,506	2,222	159,170	136,575
21. Norway . . .	124,588	2,884,300	2,437	199,684	63,110
22. Persia (Iran) .	628,000	15,000,000	576	—	—
23. Poland . . .	150,052	33,823,000	11,082	211,334	25,734
24. Portugal . . .	34,254	7,260,000	2,158	49,466	38,460
25. Rumania . .	113,884	19,319,330	6,965	56,797	—
26. Russia	8,116,254	165,847,100	52,089	739,381	245,600
27. Siam	200,148	13,502,000	1,948	—	—
28. Spain	190,050	24,583,096	10,340	312,719	194,209
29. Sweden . . .	173,347	6,249,489	10,291	616,947	159,083
30. Switzerland .	15,944	4,066,400	3,233	383,289	90,090
31. Union of South Africa . . .	472,550	9,530,649	13,855	140,349	241,705
32. United States .	3,026,789	129,257,000	243,857	16,868,955	26,221,052
33. Venezuela . .	352,051	3,414,160	620	19,285	16,800

TABLE IV. POPULATION OF THE IMPORTANT CITIES OF EACH NATION

1. *Argentina*

Buenos Aires	2,268,000
Rosario (Santa Fé)	508,000
Córdoba	309,000
La Plata	191,000

2. *Australia*

Sydney	1,255,000
Melbourne	1,008,000
Adelaide	315,000

3. *Belgium*

Brussels and suburbs . . .	900,000
Antwerp	274,000
Ghent	165,000
Liège	162,000

4. *Brazil*

Rio de Janeiro	1,701,000
São Paulo	1,151,000
Recife	473,000
São Salvador	364,000
Porto Alegre	328,000
Belém	311,000

5. *Canada*

Montreal	819,000
Toronto	631,000
Vancouver	247,000
Winnipeg	219,000
Hamilton	156,000
Ottawa	127,000

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[1] According to the latest census figures and official estimates.

6. *Chile*

Santiago	696,000
Valparaiso	193,000
Concepción	78,000
Antofagasta	54,000

7. *China*

Shanghai	3,490,000
Peiping and suburbs	1,556,000
Tientsin	1,292,000
Nanking	1,019,000
Canton	861,000
Hankow	778,000
Chungking	635,000
Wenchow	631,000
Changsha	607,000
Hangchow	507,000
Foochow	323,000
Soochow	260,000

8. *Colombia*

Bogotá	350,000
Barranquilla	150,000
Medellín	150,000
Cali	115,000

9. *Denmark*

Copenhagen	843,000
Aarhus	87,000
Odense	69,000
Aalborg	45,000
Horsens	28,000

10. *Egypt*

Cairo	1,065,000
Alexandria	573,000
Port Said	115,000
Tanta	100,000
El Mansura	72,000

11. *France*

Paris	2,830,000
Marseille	914,000
Lyon	571,000
Bordeaux	258,000
Nice	242,000
Toulouse	213,000
Lille	201,000
Nantes	195,000
Strasbourg	193,000
Saint-Étienne	190,000
Le Havre	164,000

12. *Germany*

Berlin	4,243,000
Vienna	1,874,000
Hamburg	1,129,000
Prague	849,000
Cologne	757,000
Munich	735,000
Leipzig	713,000
Essen	654,000
Dresden	642,000
Breslau	625,000
Frankfort on the Main	556,000

13. *Great Britain*

London	8,475,000
Birmingham	1,124,000
Glasgow	1,088,000
Liverpool	855,000
Manchester	748,000
Sheffield	521,000
Leeds	487,000
Edinburgh	465,000
Bristol	413,000

14. *Greece*

Athens	453,000
Salonika	237,000
Patras	65,000
Kavalla	50,000
Heraclion	33,000
Mytilene	28,000

15. *Hungary*

Budapest	1,052,000
Szeged	136,000
Debreczen	120,000
Kecskemet	80,000
Hódmezövásárhely	60,000

16. *India*

Calcutta	1,486,000
Bombay	1,161,000
Madras	647,000
Hyderabad	467,000
Delhi	447,000
Rangoon	400,000

17. *Italy*

Rome	1,149,000
Milan	1,104,000
Naples	860,000
Genoa	625,000
Turin	623,000

Palermo	408,000
Florence	319,000
Bologna	267,000
Trieste	243,000
Catania	242,000

18. *Japan*

Tokyo	6,086,000
Osaka	3,102,000
Nagoya	1,083,000
Kyoto	1,081,000
Kobe	912,000
Yokohama	704,000
Hiroshima	310,000
Nagasaki	211,000
Hakodate	210,000
Kanazawa	157,000

19. *Mexico*

Mexico City	1,029,000
Puebla	115,000
Mérida	95,000

20. *Netherlands*

Amsterdam	782,000
Rotterdam	595,000
The Hague	482,000
Utrecht	156,000
Haarlem	122,000

21. *Norway*

Oslo	253,000
Bergen	99,000
Trondhjem	54,000
Stavanger	47,000
Drammen	25,000

22. *Persia (Iran)*

Teheran	360,000
Tabriz	219,000
Isfahan	80,000
Resht	40,000

23. *Poland*

Warsaw	1,225,000
Lodz	639,000
Lemberg	316,000
Posen	260,000
Krakow	237,000

24. *Portugal*

Lisbon	594,000
Oporto	232,000
Setubal	37,000
Braga	27,000
Coimbra	27,000

25. *Rumania*

Bucharest	641,000
Kishinev	115,000
Cernauti	111,000
Jassy	103,000

26. *Russia*

Moscow	3,663,000
Leningrad	2,776,000
Baku	710,000
Kharkov	654,000
Kiev	539,000
Rostov-on-Don	521,000
Odessa	497,000
Tiflis	406,000
Dniepropetrovsk	188,000

27. *Siam*

Bangkok	931,000

28. *Spain*

Barcelona	1,148,000
Madrid	1,048,000
Valencia	353,000
Seville	239,000
Malaga	188,000
Saragossa	174,000
Bilbao	162,000
Murcia	159,000
Granada	118,000
Cartagena	103,000

29. *Sweden*

Stockholm	534,000
Göteborg	258,000
Malmö	141,000
Norrköping	61,000
Hälsingborg	56,000

30. *Switzerland*

Zürich	313,000
Basel	148,000
Geneva	124,000
Bern	112,000
Lausanne	79,000

31. *Union of South Africa*

Johannesburg	379,000
Cape Town	322,000
Durban	259,000
Pretoria	106,000
Port Elizabeth	86,000

32. *United States*

New York	6,930,000
Chicago	3,376,000
Philadelphia	1,950,000
Detroit	1,568,000
Los Angeles	1,238,000
Cleveland	900,000
St. Louis	821,000
Baltimore	804,000
Boston	781,000
Pittsburgh	669,000

33. *Venezuela*

Caracas	141,000
Maracaibo	75,000
Valencia	37,000
San Cristóbal	28,000
Barquisimeto	23,000

TABLE V. SOME OF THE PRINCIPAL MOUNTAINS OF THE WORLD

North America

MOUNTAINS	LOCATION	HEIGHT IN FEET
McKinley	Alaska	20,300
Logan	Canada	19,850
Orizaba	Mexico	18,541
Nauhcampatepen	Mexico	18,415
St. Elias	Alaska-Canada	18,008
Citlaltepetl	Mexico	17,360
Ixtaccihuatl	Mexico	17,338
Lucania	Canada	17,150
Foraker	Alaska	17,000
King	Canada	16,971
Steele	Canada	16,439
Bona	Canada	16,422
Sanford	Alaska	16,210
Blackburn	Alaska	16,140
Wood	Canada	15,880
Vancouver	Canada	15,700
Quincy Adams	Alaska	15,560
Toluca	Mexico	15,448
Fairweather	Alaska-Canada	15,399
Mt. Whitney	California	14,496
Mt. Rainier	Washington	14,408
Pikes Peak	Colorado	14,109

South America

MOUNTAINS	LOCATION	HEIGHT IN FEET
Aconcagua	Argentina	22,834
Coropuna	Peru	22,802
Ojos del Salado	Argentina-Chile	22,573
Dos Conos	Argentina	22,507
Falso Azufre	Argentina-Chile	22,277
Tocorpuri	Bolivia-Chile	22,163
Incahuasu	Argentina-Chile	21,720
Illampu	Bolivia	21,276
Bonete	Argentina	21,031
Chimborazo	Ecuador	20,702

Europe

MOUNTAINS	LOCATION	HEIGHT IN FEET
Elbrus	Russia	18,468
Blanc	France-Italy	15,781
Monte Rosa	Italy-Switzerland	15,217
Etna	Sicily	10,755
Ben Nevis	Scotland	4,406
Vesuvius	Italy	4,012

Asia

MOUNTAINS	LOCATION	HEIGHT IN FEET
Everest	Nepal	29,141
Kanchinjunga	India	28,146
Nanga Parbat	India	26,629
Mustagh Ata	Turkestan	24,357
Demavend	Persia (Iran)	18,605
Ararat	Turkey	16,916
Kerinchi	Sumatra	12,484

Africa

MOUNTAINS	LOCATION	HEIGHT IN FEET
Kilimanjaro	Tanganyika	19,324
Kenya	Kenya	17,044
Ruwenzori	Belgian Congo	16,798
Ras Dashan	Ethiopia	14,960

Australia

MOUNTAINS	LOCATION	HEIGHT IN FEET
Kosciusko	Australia	7,328
Dalrymple	Australia	4,200
Bruce	Australia	4,024

Antarctica

MOUNTAINS	LOCATION	HEIGHT IN FEET
Erebus	Antarctica	13,300
Harmsworth	Antarctica	9,639

TABLE VI. SOME OF THE PRINCIPAL RIVERS OF THE WORLD

RIVER	LENGTH IN MILES
North America	
Missouri	2945
Mackenzie	2500
Mississippi	2495
St. Lawrence	2150
Yukon	2100
Rio Grande	1650
Saskatchewan	1205
South America	
Amazon	3900
Paraná	2450
Plata-Paraguay	2300
São Francisco	1800
Orinoco	1600
Araguaya	1550
Purus	1500
Europe	
Volga	2300
Danube	1725
Dnieper	1400
Ural	1400
Kama	1115
Don	1100
Dvina	1100
Pechora	1000
Asia	
Ob	3200
Yangtze	3100
Amur	2900
Hwang	2700
Lena	2860
Indus	2000
Brahmaputra	1800
Ganges	1455
Africa	
Nile	4000
Congo	2900
Niger	2600
Zambezi	1600

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ā *as in* āce
ā̇ *as in* senā̇te
ă *as in* ăm
ă *as in* *ă*ffect
ä *as in* ärm
ȧ *as in* ȧsk
ȧ *as in* *ȧ*bout
ē *as in* ēve
ē̇ *as in* ē̇vent
ĕ *as in* ĕbb
ĕ *as in* nov*ĕ*l
ẽ *as in* pẽrhaps
ī *as in* īce
ĭ *as in* ĭll
ō *as in* tōne
ō̇ *as in* ō̇bey
ô *as in* ôrb
ŏ *as in* ŏdd
ŏ *as in* c*ŏ*nnect
ū *as in* ūse
ū̇ *as in* ū̇nite
û *as in* ûrn
ŭ *as in* ŭp
ŭ *as in* s*ŭ*btract
ü *as in* menü
o͞o *as in* fo͞od
o͝o *as in* fo͝ot
oi *as in* oil
ou *as in* out
ṇ *as in* iṇk
N *nasal as in* boN
th *as in* thin
t̶h *as in* t̶hen
K *guttural like* ch *in* loch

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